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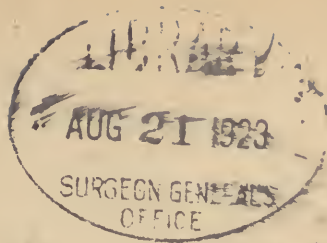
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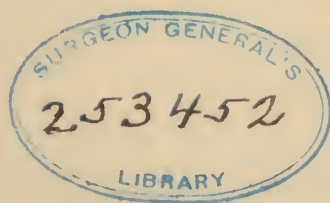
THE TUBERCULOSIS WORKER

A HANDBOOK ON METHODS
AND
PROGRAMS OF TUBERCULOSIS WORK

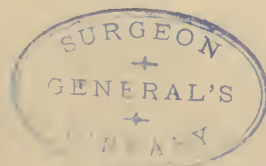
BY

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BALTIMORE
WILLIAMS & WILKINS COMPANY
1923



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TO MY WIFE

PREFACE

It would be difficult to make an accurate list of all persons who might be called "Tuberculosis Workers." We might start with those who are employed to do tuberculosis work including the secretaries and other staff members of national, state and local associations. Then we would add the nurses, physicians and laymen who are engaged in caring for the tuberculous at home or in sanatoria. Another group would be that large number of socially-minded volunteers who are serving as workers in the tuberculosis field in connection with associations, sanatoria, clinics and other agencies. The appeal of this volume is intended for all of these and also for others who are interested in methods and programs of tuberculosis work indirectly.

The number of tuberculosis workers has increased rapidly with the growth of the movement for the prevention of the disease. The need for giving to this large group of men and women a broad comprehensive vision and knowledge of their task is the reason for this book.

I am greatly indebted to the following who have read and criticized portions of the book in which they have been directly interested: Dr. Charles J. Hatfield, Dr. Linsly R. Williams, Dr. H. A. Pattison, Frederick D. Hopkins, Charles M. DeForest, Arthur J. Strawson, Miss Jessamine S. Whitney, T. B. Kidner, Basil G. Eaves, Homer Folks, George J. Nelbach, Harvey Dee Brown, Dr. D. B. Armstrong, Dr. N. Gilbert Seymour, Dr. M. Alice Asserson, Miss Mary E. Marshall, Miss Lucinda N. Stringer, Mr. and Mrs. E. G. Routzahn, and Mr. Elmore Leffingwell. The helpful editorial criticisms and comments of Miss Eleanor B. Conklin have been of great value.

To the many students who have helped to inspire this work by their faithful attendance at eleven institutes for training of

tuberculosis workers, I owe much. It is impossible to appraise the help given by the enthusiastic support of tuberculosis secretaries and others during these last fifteen years. My thanks are especially due to them.

St. Paul's commendation to his "son in the gospel," Timothy, is well worth careful consideration by all tuberculosis workers: "Study to show thyself approved, a workman who needeth not to be ashamed."

PHILIP P. JACOBS.

January, 1923

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PART ONE

Methods of Tuberculosis Work

Out of more than fifteen years of active campaigning and organization, the tuberculosis movement has developed a certain amount of technique which has been crystallized in methods and programs of national, state and local associations scattered throughout the United States. In the beginning the National Tuberculosis Association and those local organizations that were in existence in 1904 conceived of their task primarily as one of education, on a somewhat wholesale scale, with reference to the nature and prevention of tuberculosis. Out of this somewhat simple conception of the prevention of tuberculosis has developed a very considerable methodology.

A DISCUSSION OF TECHNIQUE

The primary aim of this book may be briefly stated as a discussion of technique. To bring to tuberculosis secretaries and other public health workers a knowledge of the experience gained during the last twenty years in the development of the underlying technique of their particular jobs is its first consideration. The book will aim to make the achievement of the best the common property of all. For purposes of convenience it is divided into two parts, the first dealing with methods of tuberculosis work, and the second dealing with programs of tuberculosis work, including the coördination of methods and programs of tuberculosis work with other social and public health activities in the community. Throughout the book the control of tuberculosis, in its last analysis, is conceived as a local community problem. A certain amount of overlapping in the discussions of methods and the discussions of programs is unavoidable. It is always well, however, for the tuberculosis worker to distinguish between the method and

the place that that particular method has in the development of a community program.

The book presupposes a more or less fundamental knowledge of tuberculosis in its medical and social manifestations. In other words, this work is not a study of tuberculosis as a disease, either in the individual or in its broader community relations. It is rather, as has been said before, a study of methods and programs.

BASIS OF BOOK

The entire book is based upon the experience and observation of hundreds of tuberculosis executives in all parts of the United States and in foreign countries. The experience of such related organizations as the Young Men's Christian Association with its analogous national, state, regional and local problems; the American Red Cross with its national, divisional and local organizations; and of other national agencies is freely utilized.

BIBLIOGRAPHIES

The bibliographies appended to most of the chapters of the book are purposely not exhaustive. An effort has been made, however, to select those references which are of most immediate and pertinent value, and also to utilize the most recent experience available in printed form.

CHAPTER I

THE HEALTH SALESMAN

The executive or organizer who seeks to interest a community in the control of tuberculosis will be able most easily to visualize his task if he considers himself as a salesman selling health. The term "selling" in reference to various kinds of ideas and promotion schemes gained a new connotation during the war. Nowadays it is commonplace to read and hear of executives of social and business organizations selling ideas. The tuberculosis secretary is, in a real sense, a salesman. He goes into a community and seeks to arouse a sufficient amount of interest and enthusiasm to secure the necessary machinery for the control of tuberculosis. The machinery consists of men, women, children, institutions, and money. To get these he must sell an idea, namely, that health is a profitable and paying individual and community investment.

DIFFICULTIES IN SELLING HEALTH

As a salesman of health, the tuberculosis secretary has one of the most difficult tasks of salesmanship imaginable. It is barely possible that the minister who sells religion has an equally difficult or more difficult task. To sell health to an ordinary American community is a task that challenges the best resources of any man or woman.

The health salesman is trying to sell people something that they do not care for and do not value until it is gone. To the average individual in good health it is hard to sell the idea that his good health is worth preserving. To be sure, if he is sick or suffers from some defect or impairment, it is not a difficult task to convince him that his health needs attention. Similarly, in a community where health is of the average quality it is not easy to arouse a group consciousness in regard to health.

The moment, however, an epidemic of influenza, typhoid fever, or some other particular disease appears, the community immediately appreciates that it lacks health, and it needs little salesmanship then to convince the group of the necessity for good health. The fact that tuberculosis is of such a subtle character, even though so widespread, makes it difficult for the salesman of health to arouse interest on the basis of a community epidemic.

Then again, the salesman of a commodity, such as shoes or automobiles, can easily visualize to his prospective customer the advantages of his particular wares. The salesman of health finds difficulty in visualizing his idea, except as he presents it in terms that indicate a loss of health.

THE CONTROL OF TUBERCULOSIS

With the analogy of salesmanship in mind, the control of tuberculosis involves:

1. Community health

It is one thing to sell individual health to the man who is well or to the man who is sick; it is a radically different thing to sell health to an entire community. The technique of the former approach is relatively simple. The technique of the latter is extremely complicated, as will be pointed out in this and subsequent chapters.

2. Conception of tuberculosis as a preventable disease

The tuberculosis executive must do more than merely sell health. He must sell a very specific and concrete idea as a part of his general health concept, namely, that infection with tuberculosis can be avoided and reduced to a comparative minimum, and that a normal physical resistance will help to ward off breakdown with tuberculosis even after infection has entered the body.

One often reads that it is poor psychology to emphasize disease as a problem in a community organization campaign.

The tuberculosis executive should, however, clearly bear in mind that the success of the tuberculosis movement in the last fifteen years has been due almost entirely to the fact that the national, state and local associations have sold one idea as a partial concept of the bigger idea of health, namely, that tuberculosis is a preventable, controllable and curable disease.

WHY SELL TUBERCULOSIS

The psychology of selling a particular idea such as tuberculosis control, rather than a broad concept such as general health, will readily appeal to the health salesman as sound when he stops to analyze the proposition. No one is ever sick with public health and no one dies of public health. In fact, no one is sick with any kind of health. On the other hand, there is hardly a man in any community who does not know of someone who has been sick with tuberculosis or has died of tuberculosis. To him tuberculosis is a concrete concept. Health is an abstract concept. He will value health much more quickly when he appreciates that certain individual and community measures are necessary to control tuberculosis. In other words, the tuberculosis executive, while he is a health salesman, is also more particularly the salesman of a definite, individual, specialized concept,—the prevention and control of tuberculosis. He will gain health for his community much more rapidly by selling this narrower conception than by attempting to sell the larger idea. An illustration in business may drive home this point. The salesman of shoes, for example, is not selling shoes in general. He is selling a particular brand or style of shoe. He is selling a partial but very concrete concept under the general heading of shoes.

HOW TO SELL

The salesman who is to bring to a community the ideas of tuberculosis control mentioned above must know his technique. A wholesale distributor of hardware or machinery or soap or any other commodity would never think of sending his sales-

men out on the road without first drilling them thoroughly in the line of goods that they are to sell; secondly, in the trade that they are to meet; and thirdly, in the methods of approach to the trade. The tuberculosis salesman must know his line. He must know the people to whom he is to sell his idea, and he must know how best to present his idea so as to convince the people, individually and in groups, of the soundness of his proposition and how to secure their support.

The most significant development in American business in recent years has been the development of advertising on a national scale. The advertiser of soap, chewing gum, electrical apparatus, or automobiles, however, fully appreciates that his broadcast advertising, although it may cost him millions of dollars, will never sell his goods in sufficient quantity to make it worth while unless with it goes an intensive effort to reach the individual and the community with his wares. The tuberculosis executive must follow a similar line of procedure. He must have a knowledge of the ways and means to reach the community with a broad, extensive form of advertising and publicity, and at the same time of the ways and means of getting down to the individual man, woman and child, or to those specific groups in the community to whom a certain specialized part of his general idea must be sold.

EDUCATIONAL REQUISITES

Such a selling campaign as has been described is usually called by social workers an educational program or campaign. It is educational and more. Good selling of any kind of goods or ideas requires education. It also requires that more intensive follow-up and organization of which we have hinted in the preceding paragraphs. With education viewed for the moment as a part of a general selling campaign, it is well to point out the primary requisites of a community educational campaign the aim of which is to sell the idea of tuberculosis control. Such a campaign must be extensive, intensive, continuous and timely.

1. Extensive

The educational campaign must first of all be extensive. By this we mean, not only that it should cover the community in the broadest possible way through every medium of approach but also that the message must be broad and general. When the educational campaign against tuberculosis began, its entire program was extensive. It sought to bring to everyone by any means possible the idea that tuberculosis is a curable and preventable disease. In the early days, if by any manner of means the subject of tuberculosis could be brought to public notice, it was considered an achievement. This was the era of extensive education. The first exhibit of the National Tuberculosis Association that started out in 1906 was extensive education. A general talk or a motion picture show on tuberculosis is usually extensive education. Today the educational campaign includes other requisites, but we still must include as the first and primary requisite of any educational campaign that it be extensive both as to scope and as to subject matter.

2. Intensive

While the tuberculosis campaign must be extensive and broad, it must also be intensive. It is not enough to sell to a community the idea that tuberculosis is a communicable disease and that it can be cured or controlled. Much more than that must be done. The community must be aroused to provide machinery for finding cases, for treating cases, for proper segregation and prevention, for education of individual groups, such as school children or working men, and so on down through the entire list of agencies of which we shall speak in subsequent chapters. Such intensive education involves the breaking up of the general concept of tuberculosis into very small fragments. It may involve the idea of open windows, or of periodic medical examination, or of the necessity for a public health nurse, or of some other fragmentary part of the whole. Intensive education is designed to reach a very definite target, not with the shotgun method, but with the high calibre, small-bore rifle. It is not enough to talk about tuber-

culosis in general terms. The message must be intensified, both as to its subject matter, and also as to the group to be reached.

After the exhibit, for example, which is aimed to reach as many people as possible with an extensive message on tuberculosis, the enthusiasm aroused should be crystallized by intensive education of small groups that become the officers and directors of a tuberculosis association, or the general message is broken up and a part of it dealing with the need for a hospital is directed intensively at a county or city governing board. This is intensive education.

3. Continuous

The educational campaign must not only be extensive and intensive; it must also be continuous. One of the most vital lessons learned from the experience of the last fifteen years is that no educational campaign of a sporadic nature ever results in aroused community action extending over a long period. There have been numerous instances where a dramatic and brilliant exhibit campaign have aroused a certain group in the community to a knowledge that "something ought to be done." But in almost every instance unless the campaign has been continued on an extensive and intensive basis, that original enthusiasm has waned and finally dissipated itself into nothingness. The selling campaign against tuberculosis must be continuous, which means that it must be varied. To be effective a continuous educational movement must always work along varied lines and present the message in many different ways. To state it differently, no community educational program will be effective if it always presents its message in the same manner. The first selling effort may be a community-arousing exhibit demonstration. But one cannot forever go on holding the community attention in that way. The message must be varied in its content, in its manner of presentation, and in the groups to whom it is addressed.

4. Timely

A fourth requisite of an educational campaign is that it must be timely or seasonal. The wise salesman of tubercu-

losis control is an opportunist. He watches for a patriotic demonstration and utilizes the seasonal character of the demonstration as a chance to present his message in the right way. He will not present his message to a county fair group as he would to a group of physicians or educators seated in a convention hall. In other words, his educational message is adapted to the group and the time and the season.

In the last fifteen years the tuberculosis campaign has utilized practically every educational device that has been invented by advertising and business agencies and has devised many new ideas of its own. Such methods of education and salesmanship as exhibits, newspaper publicity, the use of the printed or spoken word, the Modern Health Crusade, motion pictures, the theatrical demonstrations, have all been employed, with more or less success, under certain circumstances. In the following chapters an effort will be made to fix the relative value of these various methods in the light of the four requisites of an educational or selling campaign indicated in the foregoing paragraphs. The significance of education and educational methods in the technique of the tuberculosis worker is emphasized by the fact that the following seven chapters are devoted to this phase of the subject.

SELECTED REFERENCES

AMERICAN MEDICAL ASSOCIATION. Council on Health and Public Instruction. Report on State Public Health Work by C. V. Chapin. Chicago, 1915.

Chapter on public health education, p. 156. Three main features of the work. It must interest, reach all classes and be truthful. Sections on bulletins, health almanacs, posters, press service, lectures, lanterns and moving pictures, exhibits, the health car, health days. Table eight gives the means of education employed by state health departments listed by state under Bulletins, press service, lectures, lantern slides, moving pictures, exhibits, health car.

ARTICLE

SCHEVITZ, JULES. Advertising as a force in public health education. American Journal of Public Health, v. 8, p. 916, December, 1918.

Oklahoma cards, newspaper advertising and lantern slides, illustrated.

CHAPTER II

EXHIBITS

HISTORICALLY CONSIDERED

The Baltimore tuberculosis exhibit of 1904 was the first attempt to bring the message of tuberculosis prevention to the general public in a graphic way. Up to that time newspaper publicity, talks, and the printed word had been the only ways in which tuberculosis had been presented to the public. A group of physicians and laymen connected with Johns Hopkins University, the Maryland State Department of Health and the Baltimore Department of Health conceived the idea in 1904 of presenting tuberculosis by means of charts, posters and models in order to arouse public interest in a program of the State Tuberculosis Commission. The entire tuberculosis movement was in its veriest infancy at that time. The National Tuberculosis Association was conceived at this exhibit and born at a later meeting in June. The success of this early Baltimore exhibit, not only in arousing interest and enthusiasm in the local community, but also in arousing the interest of the country at large, paved the way for considerable development of the exhibit idea.

Out of the Baltimore exhibit grew not only the National Tuberculosis Association, but also the first traveling tuberculosis exhibit in America. In the late fall of 1906 Mr. E. G. Routzahn, whose work in exhibit planning is known the world over, began a campaign of extensive education with the American Tuberculosis Exhibit of the National Tuberculosis Association, that extended from the Atlantic Coast to the Mississippi River and from Toronto to the City of Mexico. Hundreds of thousands of men, women and children in most of the large cities east of the Mississippi River were reached with this exhibit. In 1908 the National Association started a second

exhibit under the direction of Mr. W. L. Cosper, which traveled westward from the Mississippi River covering practically all the states from that boundary to the Pacific Coast.

The International Congress exhibit of 1908 showed, more than any other demonstration presented up to that time, the value of the exhibit as an educational method. In the light of present day exhibit knowledge and technique, the International Congress exhibit might be severely criticized. In 1908, however, it presented in graphic form what was at that time the latest and most approved information regarding tuberculosis, its nature, treatment, prevention and control. The exhibit itself was viewed by over a million people in Washington, New York, Philadelphia and elsewhere.

With the development of the campaign against tuberculosis after the International Congress, a number of state and city exhibits, patterned in large part after the Congress exhibit, were prepared. In New York, Wisconsin, New Jersey, and in several other states such exhibits toured their states, covering in many instances not only the large cities but every rural community as well.

As might have been expected, out of the experience of these large traveling exhibits, international, national and state, there developed a certain differentiation of the exhibit idea which in turn has greatly improved the technique of exhibit building and use.

The county fair exhibit, designed particularly as one of numerous competing attractions, became as early as 1910 a specialized affair. About the same time the schoolroom exhibit, designed for particular use in teaching children, came into existence. Special exhibits for use during noon-day talks with factory workers were also developed. The shop window display or exhibit was also created. Along with this there also developed exhibits of a highly specialized character such as, for example, exhibits showing sanatorium construction for use before county boards in an effort to get them to build a hospital, or exhibits of tuberculosis nurses and their work, to produce a similar effect with reference to nursing.

The original traveling exhibit was one of the truest types of extensive education that could be selected. It typifies the shotgun method. The specialized exhibit makes a move in the direction of intensive education. To be sure, as will be pointed out later, all of these specialized and differentiated exhibit forms have been greatly perfected and further varied and differentiated in more recent years. In concluding this brief historical survey of the tuberculosis exhibit, it should be pointed out that the war gave a new impetus to specialization in tuberculosis exhibit technique. The tuberculosis and other social organizations will after many years remember with deep appreciation the contributions made by numerous wartime experts to the technique of exhibit making as well as to other forms of educational work.

In general, the tendency in the use of exhibits as an educational method has been away from the large, bulky, all-inclusive traveling exhibit toward the small, specialized, compact exhibit dealing with only one thing and with one phase of a subject. This applies possibly more to state and national than to local exhibits in large cities.

The historical development of the exhibit epitomizes in a sense the historical development of the tuberculosis campaign. The large traveling exhibit had its distinct value in the days when extensive education was almost the only method known and when the most immediate need was to arouse some sort of interest in the nature, cure and prevention of tuberculosis. As organization began to develop the need for a more intensive educational tool became apparent. The small exhibit was one of these tools. The development of the exhibit idea indicates also, to some degree, its relative place and value in a community educational campaign. An exhibit is something to talk about, —something to arouse general interest in tuberculosis. It has its limitations, however, when it attempts to do something more specific. An exhibit is not an educational campaign in itself. It may be viewed as a point of departure for a more extensive or intensive effort.

ABUSE OF EXHIBITS

The success of the exhibit idea in the earlier days of the tuberculosis campaign still lingers in the fancy of many tuberculosis workers. Even today it is not unusual for a new executive without very much training or experience to announce within the first week or month of office that he intends to build an exhibit. There is great danger of abuse of the exhibit idea, primarily in using it where something else would do better. In these days of highly specialized educational methods, the first question that the wise tuberculosis executive will ask himself is: "Do we need an exhibit?" In answer to this question he will ask another one: "Will the kind of exhibit I have in mind do the work more effectively than some posters, pamphlets, printed matter, lectures, talks, motion pictures, newspaper advertising, or some other intensive method?" As the Routzahns point out in their excellent handbook, "The A B C of Exhibit Planning," an exhibit must be more than something to show or to occupy space.

The first requisite in an exhibit is to have a purpose, and the purpose must be something more than merely to educate the public. The exhibit in its present day use is an intensive educational tool. As an extensive educational tool it is apt to be wasteful and extravagant. For example, one often hears a tuberculosis secretary debating whether an exhibit or a motion picture is more desirable. In some instances both may be necessary. In many instances neither is desirable and both would be extravagant. A quotation from Routzahn with reference to the purpose of exhibits is pertinent on this point:

With a definite purpose in view, with a clear end in mind toward which all your planning is directed, you can test each step in the exhibit preparation by its usefulness in relation to that purpose. If your exhibit is aimed to teach tenement mothers to keep flies out, you know at once that you must devise special methods of inducing this reluctant group to come and see your exhibit; that detailed scientific or technical charts demonstrating the method in which flies carry disease germs will not be very convincing to them; that in addition to making the fly menace

clear, you will need to demonstrate very simply and practically how windows can be screened at small expense, or how as an alternative it is at least possible to keep flies away from the baby and from food. In fact, everything you do in preparing for the exhibit—the choosing of time, place, ideas, forms, words, explainers, follow-up—is almost sure to be different from and much more specific than would be the case had you not clearly defined your objective and directed your whole effort toward it.

SOME NECESSARY CONSIDERATIONS

If after a certain amount of self-analysis and cross-questioning it has been decided to have an exhibit, the following considerations are vital and should be carefully weighed if the investment of time and money is to be worth while:

1. Who is to see the exhibit?

The audience for whom the exhibit is planned must be uppermost in the mind of the exhibit planner. For example, is it to be a county fair crowd where the freaks, the Ferris-wheel, the automobiles, the prize vegetables, the lunch stands and numerous other attractions compete for attention? Is it to be a group of school children in their classrooms where the exhibit must be viewed from a distance of 10, 20, 30 or 40 feet? Is it to be a street crowd where the captions and entire exhibit as well must be prepared for the man who runs? Is it to be a factory audience where the exhibit must be carried from shop to shop and, therefore, must be easily portable?

The Routzahns define audiences according to the following categories:

1. Occupation—as merchants, mine owners, clerks, day laborers, etc.
2. Background of information—as college graduates, school children, etc.
3. Age—as children, young men and women, etc.
4. Degree of responsibility—as parents, teachers, clergymen, employers, etc.
5. Organized groups—as county officials, officers of labor unions, church groups, etc.

6. Points of view toward the topic—as for example, friends of the movement, or taxpayers, etc.

7. And finally as regards wealth or poverty, that is, people of great wealth or those who receive merely a living wage.

These definitions of audiences will suggest many others and will emphasize the necessity in the planning of an exhibit of giving first and foremost consideration to the audience that is to view it. No exhibit was ever made that was equally good for all kinds of audiences and probably none will ever be made that will answer such sweeping requirements.

2. Space limitations

Every exhibit must be displayed in a certain definite space. This means that it has limitations, which are determined not only by the actual dimensions of the floor space available, but also by the general environment. For example, at a county fair, if a tuberculosis exhibit is to be wedged into a 9 by 10 foot booth between a demonstration of patent vegetable cleaners and a needlework guild display, such limitation of space and environment should be clearly borne in mind in its construction. The exhibit will have to compete with many things for attention. It must be constructed, therefore, with a view to these space and environmental limitations. The distance from which the exhibit is to be viewed is important. It is not uncommon for exhibits to be set back in alcoves where one must almost use a telescope to read some of the fine print on the panels or charts displayed. On the lighting will depend not only the size of letter, but the entire color scheme. If it is a portable exhibit and must be set up between machinery in a shop, on a school platform, or on a church rostrum, the exhibit must be planned so that it will fit all kinds of spaces. It must be subject to expansion and contraction either by means of some folding device or by omitting certain features of it.

The manner in which the exhibit is displayed is also a consideration under the heading of space limitations. Some exhibits are set on easels, some are hung from wires, some are

nailed on the wall or leaned against it, and some are displayed on tables. Whatever the method used, either for panels, models or other graphic material, the space limitations will determine to a very large degree the way in which the exhibit is to be built.

3. Limitation of subject matter

The best exhibit nowadays is the one that limits its subject matter to the narrowest possible confines. As has been pointed out before, the early exhibit talked of tuberculosis and considered it in every possible ramification, social and medical. The present day exhibit limits its subject matter to a much narrower field. For example, we have exhibits that deal with outdoor sleeping, or open windows. Others discuss the food that we should eat or even food that is best for breakfast for growing children. We have exhibits that cover specific types of sanatorium construction, not sanatorium construction in general, but construction of small county hospitals, for example. The best exhibit technique narrows the subject matter down to one easily demonstrable topic.

It should, of course, be borne in mind that not every phase of the tuberculosis problem is easily demonstrable in exhibit. Sometimes it is unwise, also, to demonstrate in an exhibit what can readily be seen in actual practice or action. A good many thousands of dollars have been wasted in exhibits that illustrate, for example, sanatorium treatment, when with less money a sanatorium located in the immediate vicinity could have been demonstrated in action. Similarly, exhibits have sometimes tried to show what a tuberculosis dispensary should or should not do, when the easiest way would have been to show a tuberculosis dispensary to the few people who are really interested in viewing one from the technical side.

4. Transportation

The transportation of the exhibit will often determine its general character. If, for example, it is carried about by one or more persons in a traveling case of some kind, it may have

to be upon panels that can easily be put into such a case and are not too heavy or bulky to be carried in street cars or taxicabs. Or it may have to be constructed so that it can be folded or rolled up. If it is to be sent from town to town by express or freight, it may contain panels of a larger character mounted in a similar way, but arranged with a view to an entirely different method of display. In the early construction of an exhibit the method of transportation must be brought to the front as a determining factor.

5. Demonstration

Is the exhibit to tell its own story, or must it be demonstrated by somebody? This question must be asked at the very outset of an exhibit plan. If the exhibit is to demonstrate itself, it may be of one type of construction. If some person is to demonstrate it, it can and probably should be entirely different. If the exhibit, furthermore, is merely to be a point of departure for a lecture or talk, it should be of one type. If, on the other hand, it is to be the entire subject of a talk, it will be of a radically different type. In the latter case it may take the place of lantern slides or motion pictures. In the former case, it is designed merely to attract attention and to focus thought at the beginning of a talk.

6. Whole or part

Another vital consideration in planning an exhibit is to determine whether it is to be a unit in itself or a part of some other show. If it is to be the whole exhibit, one type of planning will be necessary. If it is to be a part of a larger exposition, or to be utilized with some other graphic material on tuberculosis or anything else, these things will in a measure determine the nature and general character of it. The color scheme, the lettering, the entire construction of the exhibit will depend upon the amount of competition it must have with surrounding material. Many an exhibit, that might have passed muster if utilized by itself, has been completely lost in the maze of a larger health show, county fair exhibit, or some similar aggregation of graphic material.

7. What is the purpose of an exhibit?

Having considered the foregoing six topics with reference to an exhibit plan, it is well by way of summary to ask oneself, "What is an exhibit?" Is it, for example, something merely to attract attention? Should it go farther than that; should it arouse interest? Should it serve as a means for getting people to stop in order that literature and printed matter may be distributed to them? Is it designed as a basis for a publicity campaign, that is, are its several parts subject to further discussion in the newspapers? Is it to be used as a text for a speech-making campaign by one or more individuals? Is it to sell goods such as Christmas seals, the handiwork of occupational classes, etc.? Is it to get people to ask questions? Is it to get people to come in and be weighed, measured or examined, or to do some other specific thing with reference to their health?

A well planned exhibit may do all of these things and must do at least one of them. Some may do nothing more than attract attention. They are then in the same relation to the general educational campaign as a poster on a billboard. An exhibit in a shop window, for example, is pretty largely for that purpose.

If a careful study of each of these questions brings an affirmative decision the exhibit will probably stand a much better chance of being successful than would be the case if it were planned with relatively no consideration of them.

BUILDING AN EXHIBIT

The construction of an exhibit is a highly technical matter. Too often this fact is lost sight of. The result is a patchwork affair. As a general rule, it is a wise plan in building an exhibit to get the advice of people who have had considerable experience in doing this thing. Even with such advice it is still necessary to decide upon certain fundamental things, of which the following are a few:

1. Subject matter

What do you wish to show? This has been discussed before as a primary consideration in planning. In building the exhibit it is even more fundamental. It is the first thing to bear in mind. The subject matter of the exhibit determines the construction.

2. Amount of money available

Most exhibits are planned with a limited budget and the tendency is to get quantity instead of quality for the money. Few secretaries who make exhibits are in that fortunate position where money is no object.

Large sums of money are not necessary to secure good exhibits. In fact, some of the best exhibits have been made with very small sums. In many cases the decorations, drawings, models, or some of the other material to be used in the exhibit can be secured from individuals and groups of various kinds, such as schools. If a sign painter is employed, he should be selected with care since not every sign painter knows how to letter an exhibit properly or how to arrange signs as they should be shown for an exhibit.

3. Style

Exhibits are built along certain style lines much the same as houses, automobiles, or clothing. Some exhibits may be a mixture of styles; some may adhere strictly to one style of architecture. For example, is the exhibit to be on panels? If so, what are the sizes to be used? This question will depend in turn upon the method of display, upon the kind of graphic material, that is, photographs, paintings, cartoons, etc. It will also depend upon the method of transportation and other factors, as has been pointed out before.

If panels are to be used, it is important to bear in mind that a uniform color scheme is desirable. An exhibit is to some extent an artistic production. It must avoid clashes in color and in styles of architecture. Just as the printer seeks to

minimize the number of different kinds and sizes of letters, so the exhibit builder should seek to minimize his lettering both as to style, size, color, etc. Always, however, lettering should be readable and should not be designed to display artistic fancy. In planning panels, it is important to consider how many are to be used. The entire display of the subject matter will depend upon the number of panels. The use of mechanical or still models is an important consideration. Models need table or floor space. Panels need wall space.

Is the exhibit to be one merely of graphic material, mechanical or still? Or will it have people doing things? One of the most effective, and at the same time one of the cheapest, county fair exhibits was shown at Poughkeepsie, where "Johnny Don't Care" and "Johnny Do Care" in person illustrated the value of good personal hygiene. In another one, a nurse dressed in gypsy costume presumably told fortunes but actually gave to children information concerning their correct weight, nutritional defects, diet, etc. If this feature of an exhibit is to be used, it will determine the construction of other parts of the exhibit.

The general color scheme of the exhibit is vital in its architecture. The exhibit must do more than attract attention. It must hold attention, at least for a moment. If the content of the exhibit, however, small, is to be taken in, it can hardly be shown at a glance. If it could, probably a poster would be more effective and cheaper than an exhibit.

4. Building the exhibit

In building the exhibit it is well to get the advice of as many experts as possible. Not every sign painter knows how to do proper lettering. Some artists can work on exhibits and some cannot. Many an exhibit has been spoiled by amateur attempts of local artists or by sign painters who have daubed instead of exhibited.

One of the most practical suggestions is not to select any one for work on an exhibit primarily because he is cheap. There are expert workers who are not in the sign business, who will work

for a low rate. Art and manual training teachers may be willing to help by advising or by doing the work at low rate, or free.

5. Simplicity

Simplicity of construction as well as simplicity in the selection of material is highly desirable. The most effective shop window exhibits are not those of the five-and-ten-cent stores, but those of the exclusive shops where one or two gowns, or a very few valuable pieces of jewelry are displayed in an attractive environment. It should be borne in mind that any graphic display depends for its success upon contrasts and harmonies of color. These in turn depend upon the judicious selection and arrangement of material. A few things well displayed are vastly better than quantities crowded and cluttered into small space. The more cluttered the exhibit, the less opportunity for selection and arrangement.

DEMONSTRATING AN EXHIBIT

Most exhibits need a certain amount of demonstration. Probably the most distinctive value of an exhibit is its power to attract people to whom the demonstrator can talk about their health. The exhibit, on the other hand, is not a place for a "dry-as-dust" lecture. Neither should the exhibit have to be explained. It should be so clear that it needs no explanation. If a demonstrator must, for example, point out to the crowd that a particular graphic chart illustrates such and such conclusions, that chart had better be left out of the exhibit or modified. Every feature of an exhibit should be so simple and self-evident that it needs no explanation.

Demonstration of an exhibit, therefore, is not explanation. The exhibit becomes a device to attract people and to bring them together in groups so that the lecturer or demonstrator can talk to them and illustrate what he has to say.

MOTION PICTURES

Too often organizations entertain the fallacy that a motion picture outfit is a desirable adjunct of an exhibit because it attracts people. A few years ago a certain state board of health spent a large sum of money in building a traveling exhibit and then added to it an expensive motion picture equipment. When the exhibit was set up in a particular town, all of the advertising related to free motion pictures. When the people assembled, they sat down in rows to listen to a stereotyped lecture with lantern slides and to look at some health motion pictures. For the most part the exhibit was wasted. The same results could have been obtained with the motion pictures alone without the exhibit. In some instances a motion picture may take the place of an exhibit. In others the exhibit may take the place of the motion picture, but usually each of these devices should be considered as one of several methods of education on tuberculosis and not as a substitute, one for the other.

WHY AN EXHIBIT?

An exhibit is not an end in itself. It is merely a means to arouse individual and community interest. It may be a part of a larger campaign or it may be the center of attraction. Routzahn says, "The function of an exhibit is to attract attention and to arouse interest in a particular need." With this idea in mind the exhibit should be viewed as one of several educational devices or methods. As such, it finds itself placed either as a means for extensive education of the whole community or as a contributing factor in an intensive educational campaign of a particular group on a special problem. Bearing these facts in mind and recognizing that an educational campaign must be extensive, intensive and continuous, the wise executive will realize that the exhibit must be followed by some other educational methods in order to keep public opinion aroused and keen on the problem at hand.

READY-MADE HELPS

There are few places in this country where ready-made exhibit material may be purchased. The Educational Exhibition Company of Providence, Rhode Island, manufactures models and other material that is of value. The Heming Advertising Service, Milwaukee, Wisconsin, makes an attractive milk-drinking doll and other similar devices. The Department of Surveys and Exhibits of the Russell Sage Foundation, of which Mr. E. G. Routzahn is the Associate Director, gives valuable advice on the desirability and planning of exhibits, as well as on when not to use them. The American Child Health Association, 370 Seventh Avenue, New York City, and the National Child Welfare Association, 70 Fifth Avenue, New York City, furnish certain types of exhibit material which often have value in connection with other material. The Publicity and Publications Service of the National Tuberculosis Association will also be glad to answer inquiries regarding exhibit technique and exhibit material.

SELECTED REFERENCES

- NATIONAL FIRE PROTECTION ASSOCIATION. Fire Prevention Day Handbook. Boston, The Association, 1921. 48 p.
- ROUTZAHN, E. G., AND M. S. The A B C of Exhibit Planning. New York, Russell Sage Foundation, 1918. 234 p.
- ROUTZAHN, M. S. Traveling Publicity Campaigns. New York, Russell Sage Foundation, 1920. 151 p.
- A new book on health publicity by the Routzahns is in preparation and will probably be published in 1923 or 1924.

CHAPTER III

NEWSPAPER PUBLICITY

No thorough-going campaign of health-selling can go on very long without resort to the newspapers and other allied publications. The periodical press, daily, weekly and monthly, is undoubtedly the most powerful medium for molding public opinion in our American community life. These periodical media group themselves into the following classes:

PERIODICAL MEDIA

1. Daily newspapers with general circulation

Most American communities have one or more daily newspapers with a general circulation. In some rural districts the daily newspapers are supplied from neighboring cities. In many communities, however, the daily newspaper is a strictly local organ.

2. Daily papers with special circulation

In the larger cities there is a limited number of daily newspapers with special circulation, such as, for example, "Women's Wear" or "Wall Street Journal" in New York, or certain labor papers published in various parts of the country. These papers appeal to a particular class or trade and are not in the same category as newspapers with a general circulation.

3. Weeklies

Under the heading of weeklies we should also include semi-weeklies or bi-weeklies. There is a large number of such newspapers in the United States, most of them strictly local. There are a few so-called weekly newspapers like the Williamsport "Grit" or the Utica "Saturday Globe" that have almost a

nation-wide circulation, but they can hardly be called newspapers except within their own immediate locality.

4. Magazines with a general circulation

The monthly, weekly or quarterly magazine field is well known. These publications circulate nationally or in restricted areas, some appealing to particular groups and some with a general appeal.

5. Trade journals and class publications

There are several thousand trade journals and class publications, most of them weeklies and monthlies. Almost every industry, profession, cult, or class has its journal or journals. In most instances there are journals for the industry and journals for the workers in the industry.

6. House organs

Most of the large American industries have publications, usually monthlies, which are grouped under the ordinary designation of house organs. Under this heading we might include all kinds of periodical bulletins published by corporations and firms for the benefit of their employes or their trade, college bulletins or papers, church bulletins, serial publications of philanthropic and similar associations, etc.

7. Summary

In the large cities of the country all of these groups of publications will be found represented. In the small cities only one or two classes may be represented by local publications, although others have a circulation even in the remotest villages and hamlets. More than 22,000 newspapers and periodical publications were published in the United States in 1922. The aggregate circulation of daily and Sunday newspapers is over 45,000,000.

WHAT IS NEWS?

Of the various groups of publications listed in the foregoing classifications the only ones to which the news element is essential are the daily and possibly the weekly newspapers. With the weekly the news element is not so serious a consideration as with the daily. The daily newspaper exists primarily for the dissemination of news. Unless it can get news, it ceases to do business. In making contacts with newspapers, therefore, whether daily or weekly, it is of supreme importance to know what is news, particularly from the standpoint of health salesmanship. Speaking broadly, any event or happening in the community is news to at least someone in the community until it is told. The newspaper editor is constantly under compulsion to select that news for his pages which is of concern to the largest number of his readers. News that is of interest to a few idlers about a barber shop or to a card club may be of comparatively little interest to the community at large. As a general rule, the larger the community, the more difficult it is to find news of interest to every reader of a paper.

From the point of view of the tuberculosis executive, who should constantly keep the good will of the newspaper press, news may best be defined by pointing out some of the elements that it should contain and some that it should not contain, as for example:

1. Timeliness

All news must be timely. It must be definitely fixed with regard to the time, place, etc. It must answer the questions, When? and Where? Unless it does, it is not news. The statement, for example, that a particular meeting was held at a certain time and in a certain place is news. The announcement of work accomplished or facts discovered by a certain group at a certain time is news with the element of timeliness. The quotation of a remark made by a certain individual at a stated time or for a particular occasion or purpose fulfills the requirements of timeliness in news. Every sentence and every phrase in a well-written news story should be tested for timeliness.

2. Accuracy

News must also answer the questions, How? and What? and in doing so it must state the facts correctly. The tuberculosis secretary must be particularly cautious in the presentation of statistics and numerical facts. Names and addresses, titles and similar data should be stated with the greatest possible care. If, for instance a man is accustomed to sign his name John Harvey Smith, it is slipshod publicity to write him up as J. H. Smith or John H. Smith. If there were 100 deaths from tuberculosis in a 100,000 population, it is not enough to say that the death rate was 100. It was 100 in a population of 100,000, and the death rate was either for tuberculosis all forms or for pulmonary tuberculosis.

3. Human interest

News to be of the greatest value must contain that element which the editor calls "human interest." It must be about people, and about people who are of interest to the entire community. For example, a relatively insignificant event in the life of President Harding is news, whereas the same event in the life of the ordinary citizen might not be news from the city editor's point of view. The newspaper is interested in things, but is chiefly interested in folks. The more prominent the folks locally and nationally, the more value the news about them.

4. Color

News for the tuberculosis executive must also contain color, that is, it must be local, seasonal and adapted to the publication. It is an interesting fact to point out, for instance, in Detroit that a certain number of people died from tuberculosis in Birmingham, Alabama; but it is a great deal more interesting and vastly more important news to Detroit to point out that fewer people died of tuberculosis in Detroit than in Birmingham, if that were the case. Color may also be expressed by utilizing the season, as for example, Christmas, the Fourth of July,

Easter, etc. News may also express color by being adapted to the publication. Some publications feature one kind of news that other publications would not consider as valuable at all. Color is the localization of copy to the community and the paper. The smaller the town, the more the demand for color. The fact that John Jones has built a new fence around his corn-field is news of local color to the country weekly, but not to the city daily, where only a few readers would know John Jones.

5. Appeal

A news story from the point of view of the tuberculosis executive must also contain appeal in some form or other. It need not necessarily ask for funds or present a "sob story." Somewhere in the story, however, there should be the element of appeal. The appeal may be, and usually should be, subtly implied. The name of the organization or a phrase like "Christmas Seals" is in itself an implied appeal. Whatever is given to the press, however, should always seek to present the tuberculosis work in a favorable light. This is the element of appeal.

6. No editorial comment

Finally, news should be devoid of editorial comment. The principal weakness of the average amateur newspaper writer is the inclusion of editorial comment in a news story. News should state facts and omit comment on them. As pointed out under the heading of timeliness, the sure news test of a phrase or sentence is the question, "Is it timely?" Any phrase, sentence or statement that does not answer that question affirmatively is very likely to be comment or editorial.

7. An illustration

The following fictitious newspaper story will illustrate the points made in the preceding paragraphs:

"The tuberculosis death rate in Blanksburg is lower than the death rate in Podunk. For the first time in ten years we have a lower death

rate than our rival neighbor. We have demonstrated conclusively that by consistent organization and educational effort, the death rate from tuberculosis in Blanksburg can be reduced. We estimate that at the present time one hundred lives have been saved and that more can be saved if the good work is continued."

This is a striking statement made by the Hon. John Smith, President of the Blanksburg Bank and President of the Bing County Tuberculosis Association in an address before the Blanksburg Rotary Club in their Health Week program at yesterday's luncheon.

Continuing his address, Mr. Smith pointed out that if the people of Blanksburg wished to do so, they could make this city the healthiest of its size in the United States. He stated, "It is merely a matter of dollars and cents plus good hard work."

Mr. Smith's address was received with great enthusiasm by the members of the Rotary Club, who voted unqualified support to the Bing County Tuberculosis Association in the Christmas Seal Sale and the campaign against tuberculosis for 1922.

In this brief newspaper story will be found the elements of timeliness, accuracy, human interest, color and appeal. While there is abundance of editorial comment, it is stated in the form of a quotation from a speech, which gives it news value and takes it out of the editorial category. The same story might have been written with little regard for any of the proper news elements as, for example, the following:

Honorable John Smith addressed the Rotary Club yesterday about the anti-tubercular campaign. There were a large number of men present.

It would be a fine thing if all the citizens of Blanksburgh coöperated with the Bing County Tuberculosis Association.

As will be seen here, the newspaper story is lacking in timeliness and accuracy. It has made little of the human interest, color and appeal features of the story and it concludes with a definite editorial statement.

PREPARATION OF NEWSPAPER COPY

The preparation of newspaper copy is too often given scant attention. It is better for the tuberculosis executive not to get in contact with a newspaper at all than to attempt to do it

with faulty and poorly prepared copy. While it would be utterly impossible to give in this chapter a course on newspaper writing, a few salient points with regard to preparation of newspaper copy may be of service.

1. Simplicity

The first essential of a newspaper story is that it be simply told. There is no place in a news story for "fine writing."

2. Correctness

In the second place, it should be grammatically correct. The newspaper editor in the smaller cities and rural communities, where copy is most often furnished by enterprising citizens, is shocked every day at the comparative lack of knowledge of the English language.

3. Proper grouping

The first paragraph should tell the meat of the story. It is not necessary to distort the English language to do this. The story should be constructed so that whoever reads it will get the essential part of it in the first paragraph. The rest of the story should be properly grouped so that the subject matter is presented in some sort of logical sequence.

Suppose, for instance, one is reporting a board meeting at which it has been decided to build a preventorium for children. The opening paragraph of the story should tell this striking news, somewhat as follows:

Children who have been exposed to tuberculosis in their homes will be cared for by the Booster County Tuberculosis Association in a preventorium to be erected for that purpose. Action to this effect was taken at a meeting of the board of directors of the Association held here yesterday. Over \$4000 was pledged at the meeting for this purpose.

President Herbert E. Jones of the Association in commenting on the action said: "etc., etc., etc., etc."

Fourteen members of the board were present representing five towns of the county, as follows:—, —, —, — and —.

This story might have started with a plain chronology of the meeting, but it would not have been a good news story. The editor is interested in what happened and not in the order of the happenings. This applies as much to a fire, an accident or a murder as it does to a tuberculosis story.

4. Mechanical considerations

It is best to have the copy typewritten, doubled-spaced at least, and possibly triple-spaced, and on one side of a sheet only. Most busy editors will throw manuscript into the waste basket at sight if it appears to be badly written or covering two sides of a page. Margins should be allowed at top and bottom and at both sides for such insertions and changes as the editor may wish to make.

5. Heads

If a head is used, it should be primarily for the purpose of attracting the editor's attention and not for the purpose of getting itself printed. The variation in newspaper style and types is so great that no one can write a head that will fit all the newspapers in a group of ten or a dozen, to say nothing of a group of hundreds or thousands. Heads may be omitted, and in the place of a head a brief note to the editor may be used, with proper spacing between it and the first paragraph. The note should condense in not more than twenty-five or thirty words the message of the story and the reason for printing it.

6. Brevity

The story should be brief and concise. Few newspapers have space, time or money to set and print words for words' sake.

7. Release

Most newspaper stories should have some form of release date. They should be released either at sight or on a specific day, and in some instances, to morning or afternoon papers.

8. *Origin*

Every newspaper story should indicate the origin of the copy. The best plan is to have the name of the association in the upper left-hand corner and the name of the paper to which it is sent in the upper right-hand corner, as for example:

From:
National Tuberculosis Assn.
New York City

To:
Binghamton Press
Binghamton, N.Y.

9. *Some general hints*

The following are a few general hints on obtaining newspaper publicity written by Charles E. Bellatty for the Massachusetts Tuberculosis League:

Give the matter to the newspapers promptly and impartially.

Leave plenty of room at the top of the first page for headlines.

Send in 'clean' copy. Whenever there is time, rewrite matter that bears many marks of correction.

Avoid breaking words at the ends of lines and sentences at the bottom of pages.

When giving names of committee members, team workers, contributors, or any other citizens of whom you may be writing, use extreme care to spell names correctly. If a gentleman signs his name "Jas. T. Powers," give his name to the newspaper that way, not as "J. T. Powers" nor as "James T. Powers" nor as "James Powers." Initials are important. Get them and give them correctly.

Number manuscript pages at the top.

Write the facts simply. Jump into the story without a wordy introduction and stop without adding editorial comment. As a rule give the most important news precedence in your story. Climaxes held to the end are often crowded out of print.

Try to get along with short words, short sentences, short paragraphs and short stories.

After you write a story see if it will interest more than the people whose names appear in it. If it does, it is legitimate news.

Watch "todays," "tomorrows" and "yesterdays." If you must use such words, remember to adapt them to the time of the publication of the story in which they will appear.

If you wish news withheld, ask all the city editors of your territory to leave it out. Tell them why.

Do not complain about inaccuracies, omissions, or other seeming shortcomings in the newspaper offices. Be politely persistent and express your thanks heartily for favors which you receive and for good stories and helpful cartoons which the papers print.

Make your material so brief and so newsy that no begging for its publication is necessary. Earn your way into print. Matter that is not of sufficient worth to be printed because of general news interest should run as paid advertising.

If you can obtain manuscripts of addresses which will help the cause for which you are working, deliver the manuscripts or abstracts of them at the newspaper offices early. If you can make brief abstracts and send them in ahead of time, so much the better.

State on the first page the hour at which the address will be delivered and state whether the address is to be "released" for publication the afternoon of that day or the morning of the next.

Quote speakers directly when they make snappy constructive statements. If they use fifty words to say what you can say in five, boil down their remarks. Be careful to place quotation marks where they belong.

Dig into all manuscripts for the striking, newsy, most helpful statements and put them at the beginning of your report or your abstract of an address.

Complete news stories are said to answer the questions, Who? What? Why? Where? When? How? See if you have left out the answer to one or more of these questions from a story you are about to send in for publication.

PLACING COPY

News may be given to a newspaper in a number of different ways. For example, the story may be written out in full, as indicated above, and may be submitted to the newspaper by mail or in person. In some instances, particularly in small communities, the editor may be visited and the news related to him as it would be to a reporter. In most cities reporters will call at the office of the tuberculosis association if they understand that they are going to be treated properly and that there is news to be had. It is a good idea to ascertain from various papers who is the reporter on the "beat" that includes the anti-tuberculosis association. It is also a good idea to cultivate such reporters.

Even where a reporter calls regularly, it is well to have the material written out. Many a newspaper story has been given

a half column because it had been prepared in advance for the reporter, when it would have been given a "stick" if it had not been properly prepared. By writing out the story, furthermore, accuracy is more likely to be insured. In dealing with reporters the following warnings prepared by a group of newspaper and publicity correspondents for the Federal Council of Churches are worthy of careful consideration:

- a. They resent being used but enjoy being consulted.
- b. They have a sixth sense for detecting insincerity.
- c. They have no knowledge of different creeds but are much appealed to by the evidence of united effort and effective work.
- d. They are accustomed to being trusted implicitly.
- e. Newspaper criticism, however unpleasant, performs a great public service. Do not shut reporters out because you think something foolish may be said in the meeting. Let them in and you will be much less likely to say anything foolish.
- f. Reporters are glad to do nice things for people who are taking trouble to do nice things for them. Pass along any news items which may come your way, whether they be church news or not.

FEATURE AND EDITORIAL MATERIAL

The foregoing sections with regard to preparation and placing of copy deal primarily with news copy. The tuberculosis executive will have occasion at various times to stimulate editorial comment and to place with the newspaper copy that is not news. A newspaper ordinarily consists of news, editorials, advertisements and comments, the latter being for the most part items of general interest to newspaper readers. The preparation of feature and editorial material requires special consideration.

1. Photographs

Photographic material is of the utmost importance and value, particularly to city newspapers. Such photographic material should, for the most part, when submitted to newspapers have news value. A photograph of a prominent individual has news value today because this particular man made a noteworthy speech, laid the cornerstone of a particular building,

was elected president of an association, or in some other way had the news of the day center about him. Similarly, a photograph of a tuberculosis institution is of news value if some event of the day is focused upon it. Pictures of good-looking women, children in attractive poses, scenic groups or action photographs are nearly always sought by newspapers. The most interesting recent trend in newspaper work is the increasing emphasis on the use of pictures, a condition no doubt stimulated, to some degree, by the motion picture.

2. Periodic features

In the smaller daily and weekly papers it is not uncommon for the editor to set aside for the tuberculosis association or some other health group a column or a part of a column to be devoted at periodic intervals to the message of that organization. Columns of this character may contain health hints, general articles dealing with tuberculosis, material with regard to the health of the community, etc. They need not necessarily be newsy but must be of pertinent and personal interest to the readers of the paper. It is significant to note in this connection the increasing number of health feature syndicate series that are being sold to newspapers under such heads as "How to keep well," etc. Writers like Dr. Evans, Dr. Brady, Dr. Huber and others are read by millions through these syndicated department features, indicating the demand for accurate information on health matters.

3. Spreads

At certain intervals during the year certain newspapers, particularly those that publish Sunday editions, will give a half page or a full page spread or feature article, with illustrations, to the tuberculosis work. Unless the tuberculosis secretary is thoroughly versed in the preparation of this type of feature material, he should let one of the newspaper staff handle it. The spread is frankly, for the most part, a propaganda article and is largely an appeal. It is usually illustrated and "laid out" in proper newspaper style.

4. Editorial comment

The editor of every daily newspaper likes to write his own editorials, unless he is unusually lazy, but most editors are constantly looking for suggestions for editorials, just as ministers are looking for suggestions for sermons. The enterprising tuberculosis executive will be able to secure editorial comment by giving suggestions to the editor from time to time. These suggestions may be presented in person, in a "letter to the editor," or sometimes in a personal letter. It is better not to suggest an editorial as such, but merely to present to the editor a few striking facts, which he usually is very glad to utilize as a basis for an editorial.

5. Letters

Many newspapers will refuse for various reasons to publish news regarding the tuberculosis movement in their regular news columns, but will accept the same kind of news if it is sent to them in the form of a "letter to the editor." In some instances a fictitious campaign of correspondence may be carried on under various names by the same individual.

6. Comment

Notes and comment of not too great length are welcome "filler" in any newspaper office. They need not necessarily be news. They may recite events or facts of historical or general interest, or clever stories of local happenings that have a bearing on helath. For example a note on the death-rate among children under five years of age; a paragraph on the prevalence of tuberculosis in China; a story of a baby at a clinic; a historical summary of some great men who have died of tuberculosis—these are not news. They are good comment, and as such have their value and use in a newspaper. Often when a few inches of copy is needed to fill a column, such a note will be a real help to the make-up man in the busy newspaper shop.

The tuberculosis executive will keep closely in touch with his local newspapers if he is wise and will constantly be on the

lookout for news, features, editorials and general comment that would be of value to the newspapers.

MAGAZINE COPY

Preparation of copy for magazines, trade journals, house organs and similar publications requires a different procedure from that used in connection with newspapers. In the case of the larger magazines, they all have their own staff of writers. A special story of general interest to the public can best be secured by having it written by one of these men or women. In the case of trade journals and house organs, a timely story can more easily be placed directly with the publication. For these publications the material need not be especially newsy; it may be more general and may contain editorial comment. It may also be longer. It should be adapted to the particular publication. For example, an article in a textile journal should be of particular interest to the readers of that journal and should not be of the same type as an article for a woman's publication.

READY-TO-PRINT MATERIAL

With the exception of a relatively few large metropolitan dailies, most papers of the United States including weeklies, semi-weeklies and bi-weeklies, use a certain amount of ready-to-print material. The circulation of ready-to-print material has developed into a large business, which in turn is to a very considerable extent responsible for the existence of many of the small newspapers in the United States. Without this stereotyped material most of the weekly newspapers, and even some dailies, would cease to exist. To appreciate the use of ready-to-print matter brief consideration must be given to the mechanics of a newspaper.

NEWSPAPER MECHANICS

The cost of the average newspaper is carried under three main heads—composition, presswork and paper. The item

of composition is usually the largest, involving as it does highly skilled labor and complicated machinery, particularly in the case of large dailies. Most of the weekly newspapers and many of the smaller dailies with a circulation of less than 20,000 cannot afford to set all of their own type. They must use a certain amount of "filler material," which is furnished to them as ready-to-print or stereotyped matter.

A considerable number of the daily newspapers, particularly the larger ones, can use this ready-to-print material in the form of "mats" or matrices. For the smaller daily and weekly papers it must be furnished in the form of plate, commonly known as "boiler plate." The mat is merely a piece of heavy asbestos composition paper on which an impression from type or cut has been made. The mat is then placed in a mold and on it is poured hot metal. The result is a stereotyped plate ready to print in the newspaper. The mat is not itself, as will be noted, ready to print. A plate must be cast from it. It can be used, therefore, only by those newspapers that have casting boxes or stereotyping machinery. There are only about 1500 mat-using newspapers in the United States.

All newspapers, however, can use plate if they wish to. The plate is usually stereotyped or electrotyped. In either case it is a metal impression of the matter to be printed, and is furnished in column strips, or otherwise. It is usually ready to print, although in some instances it must be mounted in wooden blocks before it can finally be used.

Most of the plate (so-called "boiler plate") used by the daily and weekly newspapers of the United States is furnished by one syndicate, the Western Newspaper Union, with branches in 37 cities throughout the United States. This syndicate furnishes material to the newspapers either on order directly to the syndicate, or through one of its clients, with the understanding that after the metal has been used it is to be returned to the Western Newspaper Union where it is melted up and cast over again. Within recent years there have developed a number of independent concerns furnishing plate material, both electrotypes and stereotypes, to newspapers, usually without the restriction regarding the return of metal.

The use of mats or plates will be found of particular value to state, county or district organizations where a number of publications—say more than 50—are to be covered, at periodic intervals. In using mats care should be exercised in the choice of papers to which they are sent. It is a sheer waste of money to send a mat to a paper that cannot cast or stereotype a plate from it. There are some papers that do not use plate. It is, of course, a waste of money to send such material to them. It is usually wise to circularize a list of newspapers in advance, sending them either a synopsis of the story or an actual proof of the stereotyped material to be used and asking them if they will use the mat or plate, indicating which, and promising to send it to them free of charge on request. A return post-card or form should be enclosed. This involves composition and the making of original plates and proofs as a speculation, but even thus, the use of ready-to-print material becomes a comparatively cheap method of keeping one's message before the newspaper press, especially where the attention of rural readers is desired and the list is large enough. The average cost of a page of newspaper boiler plate from the Western Newspaper Union is \$2.50. The average cost of mats is somewhat less, usually not more than one half that amount, depending upon the type of material used and the cost of composition. The reduction in cost of mats, moreover, is not only in the mat itself, but also in the mailing—the mat being comparatively light material while the plate is heavy metal.

For the tuberculosis worker the use of mats and plates is of particular value in syndicate feature stories, general information regarding tuberculosis and public health, or such material as does not have immediate and timely news value, as, for example, Christmas seal propaganda. Generally speaking, plates and mats are of little value in syndicating real news.

NEWS SYNDICATES

A great deal of the day's news that is found in the papers of the United States is syndicated by central news-gathering agencies located in prominent centers throughout the world.

The Associated Press, the United Press, the International or Hearst News Service, for example, are among the largest news-gathering and distributing agencies in the world. They have agencies for collecting and distributing news in every large city.

There are other syndicates that handle feature material exclusively, such as the Newspaper Enterprise Association, the Central News Service, or the George Matthew Adams Service. Take, for example, the special articles appearing daily in hundreds of papers by such writers as Dr. Lulu Hunt Peters or Ruth Cameron, or the cartoons of Donaghy and Morris—these are syndicated and sold to the papers using them by the George Matthew Adams Service. There are other syndicates that handle pictures almost exclusively, such as Underwood and Underwood, and Harris and Ewing, or the International Film Service. During the Christmas seal season the National Tuberculosis Association furnishes large numbers of pictures of prominent people and scenes depicting tuberculosis work for syndicate through about fifteen different concerns. All told, there are probably 150 to 200 syndicates of varying scope and size in the United States handling news and feature material. Contact with some of these can be obtained in almost any community through the local newspapers or through representatives in the communities.

NEWSPAPER ADVERTISING

The average daily newspaper could not exist very long if it were not for its advertising. As is the case with most magazines, the amount of money received from subscriptions and sale of copies pays but a small proportion of the total cost of running the publication. Tuberculosis executives and social workers in general often lose sight of this important consideration when they besiege the newspapers constantly for free publicity. As a rule the newspapers of the country are generous in their attitude toward social agencies. Resolutions have been adopted by publishers' organizations condemning free publicity and propaganda, but the average editor will

publish news if it is news and will take feature material if it is of vital interest to the readers of his paper.

It is well, however, for the social agency to bear in mind that a judicious amount of paid advertising is just as valuable in a selling campaign for health as it is in selling clothing. The educational budget of a tuberculosis association should contain a definite appropriation for local newspaper advertising prepared by experts and properly placed. Sometimes it is possible to secure a certain amount of free underwritten advertising from merchants. If the tuberculosis secretary is going to ask the merchant for support during the Christmas seal sale in the purchase of seals and in the use of this store for booths, etc., he can hardly with good grace ask him also to underwrite free advertising during the year. There is another side of the question also. The editor, particularly of the smaller newspaper, is generally much more interested in publishing news about an association that pays him for advertising than about an association that does not pay.

LISTS OF NEWSPAPERS

Newspaper lists, particularly for county and state organizations, are obtainable in a number of different ways. Probably the best lists published are in the Ayer Newspaper Directory, a large volume issued annually by the N. W. Ayer Company of Philadelphia. Not even this directory, which is the most exhaustive publication of its kind, contains complete information about every publication in the country. There are hundreds of publications in every state, particularly the smaller house organs and trade journals and, in some instances, weekly and daily newspapers, that escape notice. Postmasters, banks, and representative directors in various communities can often supplement lists. To the executive who is campaigning a county, district or state, it is of vital importance to know about every medium, daily, weekly or other periodical, circulated in his territory. Take, for instance, the house organs. Churches, lodges, schools, clubs, factories, stores, banks and numerous other groups publish in almost every community a specialized

paper for their constituencies. These house organs, usually small and not always printed, are excellent publicity media. Every group is interested in the health of its members. The special group paper should be cultivated to convey the proper health information.

CREATING NEWS

The tuberculosis executive in dealing with the daily newspapers must have a certain news sense, that peculiar quality that makes for success in journalistic work. He must know news when he sees it—something that is much easier to talk about than actually to achieve. He must furthermore be able to create news when there is none. This does not mean resort to any sort of deception. It means devising those educational ideas that will provide an opportunity for newspaper publicity. Many a tuberculosis society or tuberculosis worker would remain in utter oblivion if it were not for the aggregation of news at certain seasons, such as the Christmas seal sale. A few examples may be of interest.

In St. Louis there has been conducted for a number of years a ball game between two of the major league teams, which is utilized as an opportunity for newspaper publicity and educational propaganda. Quite aside from the financial value of the occasion, the ball game is a distinct effort to create news.

The health parade, as originally devised in Indianapolis and utilized in cities all over the United States, is another means for creating news. The parade in itself is educational, but the newspaper publicity before, after, and on the occasion is even more educational. The exhibit is a way to create news and often this is its primary function. The Christmas seal sale, a medical examination day campaign, a mass meeting, letters to the editor—these are all ways of creating news. In general, it is well to recognize that if the organization or the people in it do things, news will be created.

SELECTED REFERENCES

- FRAMINGHAM COMMUNITY HEALTH AND TUBERCULOSIS DEMONSTRATION. Health Letters. (Reprinted from the Framingham Evening News.) Framingham, Mass., 1920. 84 p. (Framingham Monograph no. 8. General series III.)
- JACOBS, P. P. Publicity Sells Christmas Seals. New York, National Tuberculosis Association, 1922. 31 p.
- ROUTZAHN, E. G. Elements of a Social Publicity Program. Russell Sage Foundation, 1920. 17 p.
- Newspaper articles, p. 12. Graphic material, p. 12.
- WALLIS, J. H. How to Secure Publicity in Public Health Work. [n. p., Utah Public Health Association, 19-?] 6 p.

ARTICLES

- BELLATTY, C. How to write newspaper copy. American Journal of Public Health, 8:694, September, 1918.
- Sixteen suggestions.
- GREENE, F. D. Publicity as a means of education and support. Journal of the Outdoor Life, 15:112-14, April, 1918.
- MILLAR, B. Newspapers and public health. Public Health (Michigan Dept. of Health) n. s. 11:114-25, March, 1923.
- MOREE, E. A. Public health publicity. American Journal of Public Health, 6:97-109, 269-83, 381-401, 497-513, 730-43, February, March, April, May, July, 1916.
- I. Scope of publicity.—II. Organizing for health publicity.—III. Making a meeting effective.—IV. Newspaper publicity.—V. Newspaper advertising.

CHAPTER IV

THE PRINTED WORD

The use of the printed word must go beyond the newspaper page to the millions of men, women and children who never read any kind of paper or magazine and also to the millions who do. It is easy to think that everyone reads a newspaper, but actual statistics show that while the American daily, weekly and Sunday newspapers have a combined circulation of nearly 50,000,000, there are still apparently from twenty to forty million people who do not regularly read newspapers. It is also a well known fact that newspaper impressions, except in matters of vital and community significance, are seldom lasting and that they must be followed up in a variety of other ways. No well conducted educational campaign can hope to succeed if it relies on only one method of reaching the public. To make the education continuous, extensive and intensive, one must resort to as many different media for getting the message presented as can possibly be employed.

The printed word in the form of circulars, booklets, monographs, books, annual reports, posters, etc., furnishes means for supplementing the newspaper message. The health salesman must know when, how, and where to use a particular kind of printing. This chapter will endeavor to point out the chief types of literature useful in tuberculosis propaganda, some of the mechanical problems involved in relationship to each, and their relative usefulness.

CIRCULARS AND BOOKLETS

Under the heading of circulars and booklets are included those types of printed matter that are usually published in a two-page, four-page, or six-page circular, or in bound booklets up to thirty-two pages.

In the preparation of material of this character, there are certain fundamental points to consider:

1. Copy

The first consideration, naturally, is the copy to be used. It must be brief and "snappy." This means putting the thought in the language of the people who are to read it. The tuberculosis executive must always remember that the very nature of his organization requires a certain amount of dignity in presentation. He cannot resort to the advertising extravagance of some kinds of selling campaigns. On the other hand, there is abundance of latitude for presentation of the message in a striking manner. The value of the ordinary circular or booklet is usually determined by its brevity.

2. Size

In the preparation of circulars and booklets the size is important. There are certain standard sizes. For ordinary purposes it is well to adhere to them. The use of the booklet and circular will in most instances determine the size. If, for example, it is a wire-stitched booklet to be used in an ordinary $6\frac{3}{4}$ envelope, it cannot be more than 6 inches wide by 3 inches deep, or 3 inches wide by 6 inches deep. If it is a two-page circular, it may be either 3 x 6, 6 x 9, or even $8\frac{1}{2}$ x 11, and be folded to fit the smaller envelope size, or it may be used in a number 10 envelope without fold. If it is to be distributed by hand, or in a manila envelope, it may be bound in a 6 x 9 or a 7 x 10 size. The three commonest sizes for booklets and circulars are 3 x 6, 6 x 9, and $8\frac{1}{2}$ x 11. Variations of a half inch in any dimension are usually allowed on all three of these classifications. Paper generally comes in sizes that will fit these dimensions. If one uses 7 x 5 or 13 x 15, he soon finds that a great deal of his paper is wasted, and the cost is accordingly increased.

3. Type and layout

Sherbow in his excellent little book entitled "Making Type Work," says,

Print depends for its proper effect, first of all, upon various qualities in the face of type selected: its readability, color, distinction of design. Print depends for its effect not alone upon the fact of type selected, but also upon its size; not alone upon the type itself, but also upon its spacing, its arrangement, its combination with other types.

In the designing of any given piece of work, all these factors have to be considered in their relation to each other. They are vitally dependent upon each other. To neglect any of them is to be less effective in print than we might readily be. . . .

Advertising print to do its job must: (1) command attention (2) get itself read (3) get itself understood (4) get itself acted upon.

There are a great many different "families" of type, and in each family there are about twenty different standard sizes ranging usually from 5 point to 72 point. Supposing one is using the Caslon family, he specifies his type thus, for example 24 pt. b.f. u. and l. or c. and l.c., which means a 24 point type bold face, upper and lower case or caps and lower case. In each size there are different styles such as bold face, italic and light face. It is hardly to be expected that the social worker will master in his ordinary work all of these different styles, sizes and families of type, but he should have a certain familiarity with type. It is well to get acquainted with one family of type and to learn to use it familiarly. Too often the tuberculosis executive relies exclusively upon the printer for his typography with a result that is disastrous. Any good printer, however, can contribute greatly to the education of the social worker in matters dealing with type, if he is properly cultivated.

Every circular and booklet that a tuberculosis organization puts out must compete for attention and reading with circulars put out by commercial organizations who employ advertising men at large salaries. The amateur efforts of a social worker cannot always compete by sheer force of the message. There must be a proper amount of attention given to type layout and general mechanics of the printed word.

The use of color and illustration is pertinent. Sometimes it is overdone. Often not enough is used. The length of line for a particular size type is too often given little attention. An 8-point line, for example, may be set in too long measure so that it cannot be read easily; or sometimes, not often, a larger size type may be used than is necessary, and space is wasted accordingly. White space is frequently more eloquent than type in presenting a particular message.

4. Cover

The cover of a booklet or circular, especially one of more than two pages, is of supreme importance. Its aim is to entice the person who picks it up to read the message. The title should be striking. It should be well displayed as to type and arrangement. The cover should not be cluttered up. As a rule it is better not to have the name of the organization on the cover, particularly in the case of a social agency or where the message is obviously used as an appeal. Social agencies transgress in this respect more than in any other. The cover of a pamphlet is not to be treated in the same category as the title-page or cover of a book. In the latter case the title may be descriptive and usually should be so. In the former case the title usually should not be descriptive, but suggestive.

5. Dating

It is desirable in some way to indicate the exact or approximate date of all printed matter. Many times, in most unanticipated fashion, someone would like to know the date of a report, pamphlet, leaflet, etc. Many propaganda leaflets containing statistics are likely to be questioned by thoughtful people when they turn up undated. If the subject matter does not give the date or period, at least the year should appear in small type.

This is absolutely necessary in all forms of reports. In some annual reports it is necessary to look through several pages before locating the date and then sometimes one must deduce the period actually covered by the report.

ANNUAL REPORTS

Most social agencies feel under a certain amount of compulsion to publish a formal annual report. No one will deny that a community organization that receives its funds from the citizens of a city or town should in turn report to the people on the manner in which the money has been spent. This, however, does not mean what is ordinarily included under the term "annual report." The ordinary document of this character is a dry-as-dust statement of what has been done during the year, containing lists of directors, a report of the various officials, and possibly a picture or two relating to the work accomplished. In addition to this there is usually a list of contributors with the amounts contributed. The value of such a document, except possibly for historical purposes, is extremely doubtful. It is furthermore doubtful as to how far a social agency, particularly a tuberculosis agency, is justified in publishing an annual history of its achievements.

Substitute for annual reports

There are, however, numerous substitutes for annual reports or, to put it another way, there is a place for annual reports that are different from the usual run. The average tuberculosis executive can, if he wishes to, tell his entire story in a four-page circular not larger than 6 x 9. It is a safe assumption that such a circular will receive a vastly wider reading than the type of report outlined above. In some instances the story can be told in newspapers, either in the form of paid advertisement, in news stories, or by means of both. It may be presented in few instances by word of mouth, through the churches, or other selected audiences.

Where a more expensive document in the form of a booklet of thirty-two or more pages is used, every effort should be made to make it as readable as possible. A chronicle of a year's work may be told either in a dull and uninteresting fashion or in a human and highly attractive manner. A well told story, attractively printed, with proper illustrations and

a good cover, makes a message that will catch the attention of even the busiest man and will get a tolerable amount of reading.

The whole question boils itself down to the relative value of an extensive document in the form of a printed book or booklet, or an inexpensive report on "How we spent your money," or some similar topic.

MONOGRAPHS AND BOOKS

A few tuberculosis agencies will have occasion from time to time to spend money in the publication of monographs and books of a more pretentious character than have been outlined above. It is not possible here to enter into a discussion of the various typographical and other problems that relate to such publishing. A few salient features in this connection, however, should be noted, such as:

1. Printing

The typography of a book is determined in part by its size. A book in a type size smaller than 10 point is not readable. Usually it is better to have it leaded, that is, with additional spacing between the lines.

If the book contains a considerable amount of tabular matter, it is economy to have it set in monotype rather than in linotype composition. While the monotype composition is usually about 30 or 40 per cent more expensive in the first instance than linotype composition, the saving in author's corrections is often more than offset in tabular work, and besides a much better impression is secured.

2. Paper

Unless the book is profusely illustrated, it should be printed on antique or book stock rather than on a coated or super, or as it is sometimes called, "shiny" paper.

When illustrations are used, the best effect is obtained by the use of coated paper.

3. Binding

Monographs of less than one hundred pages may well be bound in heavy paper. For publications of over one hundred pages it is better to consider board or cloth, particularly if the book is to be used for reference purposes.

POSTERS

There is probably no kind of printed matter on which tuberculosis agencies can waste more money than on posters. It is so easy to be intrigued into this form of publicity. The aim of a poster is not to tell a story, nor to sell goods, such as Christmas Seals. Its primary purpose is to create a favorable impression. In other words, its aim and object are to give the one who sees it a fleeting, quick and general impression regarding the particular proposition in hand. The definite idea back of the poster and the impression thus gained must be driven home in one or more ways, that is, by means of the newspaper, the exhibit, the motion picture, personal contact, etc. A poster, therefore, is distinctly a part of a much bigger campaign and is much more dependent upon other forms of supplementary education than are booklets or circulars, for instance. With this preliminary consideration of the use of posters, a few points with reference to poster make-up and printing follow:

1. What is the poster for?

The first question to ask in the preparation of a poster is, "What is it to do?" Is it to advertise Christmas Seals? Is it to tell about tuberculosis? Is it to advertise the clinic? Is it to give a general impression regarding the Modern Health Crusade? What is its function? As in the case of the exhibit, the best use of the poster is the most restricted and narrowest one possible. For example, a poster that talks about tuberculosis may have its use, but a poster that talks about physical examination as one means of preventing tuberculosis, or that urges the reader to go to the clinic, or that talks about sleeping with the window open, all of which are merely phases of the

larger problem, is much more valuable. The very use of the poster demands that it limit its message. In the first place, it is hung where people do not as a rule see it for very long at a time, and where it must always be viewed at a distance. The billboard, the bulletin board, the shop window, and similar places attract a constantly changing audience. The same man may see a poster a dozen times, but he sees it each time for only a fleeting glimpse and he seldom gets a chance to study it carefully unless he goes out of his way to do so.

2. Size

The size of a poster is too often determined by the amount of money available for printing it. The use to which it is to be put is a necessary consideration. Strictly speaking, the subject matter should determine the size. Posters may be printed in a number of different standard sizes. For small window posters or cards, 12 x 14 is a favorite size. A half sheet, or 21 x 28, is also frequently used. The full sheet or one-sheet poster is 28 x 42, and is a good size but sometimes an extravagant one. The eight-sheet poster is 108 x 81. The full commercial billboard size poster is what is known as a 24-sheet. By this is meant that it is printed in twenty-four different sheets, each one of which is the size of a one-sheet poster, 28 x 42. Other sizes commonly used are 14 x 21 and 11 x 18.

3. Art work and copy

In the preparation of a poster the art work and copy are of the greatest importance. Usually the number of words should be limited. A safe rule for a half sheet or one-sheet poster is to keep the number of words down to not more than twenty-five and better still to fifteen. The illustration, if there is one (and there should be one), should cover most of the poster. The illustration and the text or slogan must be so combined that they convey one message. A poster in which the slogan or text phrase is merely the caption to a picture, no matter how good the picture, is not a real poster. The

poster must convey one unified impression and must do it quickly, at a glance almost, so to speak. For this reason, color is important. What is needed is bright, intense color that will compel notice. Reds, yellows, blues, greens are preferable to the tints and shades.

4. Paper

Posters for outdoor use are printed on a special grade of paper designed to stand the weather. For indoor use this paper consideration need not be taken so much into account.

5. Simplicity

From what has been said before, it will be gathered that simplicity should be the keynote of a poster. The poster that requires the reader to solve a puzzle or to follow through a narrative, unless it is placed where it can be viewed for a more or less continuous period by a large number of people, is not apt to produce the desired effect.

LETTERHEADS

The letterhead of a tuberculosis association too often unwittingly shows the efficiency or lack of efficiency of the organization. A letterhead is designed primarily to give the name of the organization, information concerning its standing in the community, its address, and the names of its principal officials.

In planning letterheads the layout should provide for a prominent display of the name of the organization. It should be the most prominent thing on the sheet. The letterhead should contain the full address. Letterheads that are used all over the United States should carry the state name. "Springfield" is not a proper address, when there are a dozen Springfields scattered throughout the United States. "Morgan County Tuberculosis Association" is not a sufficient address. The letterhead should have the name of the principal executive and possibly the names of the subordinate executives, depending upon the size of the staff. It should surely carry

the names of the prominent officers, in order to give it proper standing in the community. The use of names of the directors on letterheads, particularly in local associations, is a question about which there is considerable difference of opinion. If possible, they should be included. As a general rule, it is better not to have the names of directors or officers running down the left hand margin of the page. Printing on the back of a letterhead usually gives the stationery a messy appearance. It is, of course, highly desirable that the letterhead should not take up more than 3 inches at the top of a page in order to give sufficient space for writing. Associations will save considerable money by employing different grades of paper for letterheads, using one best grade of stationery with the full directorate for certain types of dignified correspondence, and another cheaper, possibly one-color, letterhead for less important individuals or for individuals with whom correspondence is frequent.

PERIODICAL PUBLICATIONS

The value of a periodical publication for state and local tuberculosis associations is determined in most instances by the amount of correspondence that the organization has and the number of individuals it wishes to reach. The house organ or bulletin is, after all, merely a device for informing the local public in regard to the work of the organization by means of a printed page rather than a typewritten letter. The matter of publication is largely one of economy. The number of contacts will determine to a very considerable extent the need for a periodical. If, for example, the association has a group of friends and members of say 1000, the question should be frankly faced as to whether this constituency cannot be reached more effectively and less expensively by a quarterly mimeographed letter and a monthly display advertisement, for example, than by a printed periodical house organ. The facing of this question frankly would suspend publication of many existing bulletins of local associations.

Where a periodical is desirable, the principal point to notice is, first of all, the editing. The type of copy to be used, the editorial policy, the heads, the general make-up of the publication are all points that the editor must consider. Second, the printing is of importance, or if it is mimeographed or multigraphed, it amounts to the same thing. The mailing is important also. If the circulation is wide, a second-class entry is often desirable and can often be secured.

Taking into consideration the time necessary for editing, proofreading, mailing and the cost of print, the tuberculosis executive should frankly ask himself if it is cheaper to reach the particular group desired with an occasional letter or with a monthly periodical, and which is the more effective way of doing it. There are publications that could be discontinued with advantage to the organization. There are others that ought to be expanded. The question of continuance or expansion will be determined largely by an analysis of some of the problems here indicated.

PAPER

In concluding this chapter on the printed word, a brief consideration of paper may be desirable. The average worker, and particularly those who come into the field without much previous contact with the printed word, know relatively little about paper. The handling of paper and the sale of paper is a highly specialized business. In fact, there are many men who do nothing but handle some one particular line of paper and who pretend to know nothing about other lines of paper. A man, for example, may be expert in tissue paper and know nothing about book papers; or he may be highly proficient in the sale of fine writing papers and know nothing about ordinary news or printing paper.

The kinds of paper that are ordinarily used by tuberculosis associations are, first of all, "super" or supercalendered paper, book or antique, and coated paper. Now and again cheaper grades of news or machine finished paper and, for letterheads and other special purposes, bond paper may be used.

News, or any unfinished paper when viewed under the microscope, shows a very rough surface, full of holes and humps. It is not designed for printing of fine illustrations. Super-calendered paper, or, as it is commonly known in the trade, super paper, is paper that has been specially ironed, rolled, or calendered in the mills until it has a relatively smooth surface. Such paper will print satisfactorily moderately coarse half-tones and line cuts and all kinds of type. Coated paper is paper that has been rolled in much the same way as super paper but on the surface of which there has been spread a sizing of clay, casein and other substances designed to fill up all the porous spaces and to make the smoothest kind of printing or writing surface. Such paper will print any kind of half-tone and can be used for almost all kinds of purposes where fine illustration is desired. The toughness or tensile strength of paper is determined by the amount of wood, rag or other fiber it contains.

Where no half-tone illustration is required, and where the subject matter consists merely of text with line cuts, an antique or book paper may be used. This paper does not have a smooth surface. Type printed on it is usually much more readable than upon any other paper. It does not have a glare or shine and takes ink better than other papers.

Paper comes in various sizes and weights, depending upon the kind. For a particular piece of printed matter it is highly desirable to ascertain before going too far in its preparation the kind of paper that will best print it, the size and the weight. For the secretary who is unfamiliar with these technicalities it is a good plan to have the printer submit a dummy. It is also a good plan to make dummies for one's own use.

In general, it should be borne in mind that all paper is made for particular purposes and that the best printing effect can be secured only when it is used for the purpose for which it is manufactured. Circulars, booklets, pamphlets and bulletins that do not use half-tone cuts can be printed on super or antique paper. If cuts, other than line cuts, are used, a coated paper may be needed, depending upon the effect desired. Books and

monographs are usually printed on book or antique paper. Posters are generally printed on a special grade of coated or super, depending upon the copy.

The relative cost of these three kinds of paper may serve to indicate their use. On January 1, 1923, good grades of super were selling for about 10 cents a pound, antiques at about 9½ cents a pound, and coated at about 13½ cents.

SELECTED REFERENCES

- IVES, GEORGE B. Text, Type and Style, A compendium of usage adopted by The Atlantic Monthly Press. 2d ed. Boston, 1921. 306 p.
- MANUAL OF STYLE. A compilation of typographical rules governing the publications of the University of Chicago, with specimens of types used at the University press. 7th ed. Chicago, Ill. University of Chicago press, 1920. 300 p.
- RAMSEY, R. E. Effective Direct Advertising; the Principles and Practice of Producing Direct Advertising for Distribution by Mail or Otherwise. New York, Appleton, 1921. 640 p.
- SHERBOW, B. Effective Type-Use for Advertising. New York, 50 Union Square, The Author, 1922. 139 p.
- SHERBOW. Making Type Work. New York, Century Company, 1916. 129 p.
- SOLVING ADVERTISING ART PROBLEMS. New York City, Advertising Artists, inc. [1919] 111 p. illus.
- VIZETELLY, FRANK H. The Preparation of Manuscripts for the Printer. 7th ed., New York, Funk & Wagnalls, 1918. 148 p.

CHAPTER V

THE MODERN HEALTH CRUSADE

Among the various means devised for health education none has proven more effective than the Modern Health Crusade inaugurated by the National Tuberculosis Association in 1917. The Modern Health Crusade grew out of various efforts to stimulate the interest of children in the Christmas seal sale. It is manifestly and primarily an effort in the health education of school children. It should be clearly noted at the beginning of this chapter that the Crusade is not an organization but a *system* of health education, or rather of training in health habits.

The central feature of the Modern Health Crusade is the record of health chores (see page 68).

The record of health chores is an effort to set in the form of eleven commonplace, everyday tasks those simple health duties that should become habitual in the life of every child and should of necessity be carried over through the adolescent period into adult life. Back of the Crusade is the conviction that if the school children of this generation can be properly trained in personal hygiene and by such training can be given a conception of community hygiene, the problem of the control of tuberculosis, and in fact the entire public health question, will be much nearer solution within the next twenty-five years than would be the case otherwise. Such health teaching of school children should eventuate in that ideal expressed in the dictum of Pasteur: "It is within the power of man to rid himself of every parasitic disease."

BASIS OF CRUSADE

The Modern Health Crusade, as its very name implies, is based upon an appreciation of three fundamental elements of child psychology, viz.:

1. Romance

Every child likes to make believe that he is somebody else. The romance and chivalry of the ages are found in the children of today. The Modern Health Crusade brings to the children a new type of romance and chivalry, that of health, and endeavors to inspire in them the same type of militant service for themselves and for others exemplified in the medieval crusaders.

2. Competition

A second element of child psychology that is basic to the Crusade is that of competition. Along with competition goes the element of play. To the child, washing behind the ears, brushing the teeth, sitting up straight, taking a bath, and all of the other desirable health duties become drudgery and hard work, unless they are sugar-coated with romance and mixed with competition and play. The Crusade provides the necessary flavor to make these health chores palatable. Nearly 7,000,000 school children are today engaged in competitive contests, seeing who can brush their teeth or wash behind their ears and do the other health chores in greatest number, simply because the Modern Health Crusade has made it fun instead of hard work.

3. Rewards

The Crusade also takes cognizance of that element in child psychology which requires some sort of tangible reward or recognition of merit. To the adult, "Well done, good and faithful servant" may be a sufficient reward, but not so with the child. He must have something that he can touch, taste or see. The Crusade gives to him honors and merits in the form of badges, buttons and so forth. But the plan for awards shows great latitude. Frequently, instead of a badge, the award is a star on the roll of health knighthood, the school room chart, or a credit or "mark" in a regular hygiene class.

THE TREND OF THE CRUSADE

The Modern Health Crusade as a system of health teaching has from its very inception been obliged to contend with two underlying problems, first, to make the required work as simple and inexpensive as possible; and second, to supply the maximum interest to the child, teacher and community.

To meet the first of these problems, the leaders of the Modern Health Crusade in the National Tuberculosis Association office and in the various state associations have agreed upon the following requirements as absolutely minimum and necessary:

1. Performance

Whether the Crusade is used for children in the primary grades, or children in the grammar school, or children in the high school, there must be a definite record of chores with a specification that a certain number are to be performed for a definite number of weeks in order to qualify at all. The requirement is that the child must perform 54 out of a possible 72 chores each week for five, ten, fifteen, or whatever other period of weeks may be specified. The National Association recommends twenty-four weeks as a desirable maximum in a year, and twelve weeks as a desirable minimum. A graded course of chores recommended for the Crusade and extending over four years gives the title of Squire at the end of the first year, Knight at the end of the second, Knight Banneret at the end of the third and Knight Banneret Constant after the fourth year.

2. Recording

It is of relatively little value to ask that the children perform chores such as brushing their teeth, or sleeping with the windows open, or taking a bath, unless there is at the same time a recording of these chores on a record furnished for the purpose. Critics have suggested that a child may be tempted to falsify the record and have often overlooked one of the valuable opportunities afforded for developing the child's

Date.....to.....192....

RECORD OF HEALTH CHORES

Weeks No.....to No.....

DAILY CHORES	Weeks No.....to No.....						
	S	M	T	W	T	F	S
1. I washed my hands before each meal. I cleaned my fingernails today.							
2. I brushed my teeth after breakfast and the evening meal.							
3. I carried a handkerchief and used it to protect others if I coughed or sneezed.							
4. I tried to avoid accidents to others and myself. I looked both ways when crossing the street (road).							
5. I drank four glasses of water but no tea, coffee nor any harmful drink.							
6. I had three wholesome meals including a nourishing breakfast. I drank milk.							
7. I ate some cereal or bread, green (watery) vegetable and fruit, but ate no candy nor "sweets" unless at the end of a meal.							
8. I went to toilet at my regular time.							
9. I tried to sit and to stand straight.							
10. I was in bed eleven hours last night, windows open.							
11. I had a complete bath and rubbed myself dry on each day of the week checked (x).							
Total number of chores done each week							

I certify on my honor that I did every chore marked X on the day indicated and the total number written on this record for each week.

.....
Signature of boy or girl

I believe that the child whose name is written above did the number of health chores indicated.

.....
Signature of parent

.....
Teacher's signature or mark in approval

.....
School

WEIGHT RECORD

To be filled in by teacher and shown to your parents

Weight within a week of the first day of this record..... (on..... 192..) was..... lbs.

Weight within a week of the last day of this record..... (on..... 192..) was..... lbs.

The standard weight for height (.....) and age (.....) is..... lbs.

No. of inches No. of years

You should gain about..... ounces each month at your age.

.....
Grade

.....
Post Office Address

sense of honor. It should be remembered that all positive virtues are acquired by facing temptations and choosing the right. The Crusade system gives invaluable drill in promoting truthfulness by giving the child the choice between right and wrong statements daily, by putting him on his honor to choose the right and supplying an effective follow-up or check on his choice. The report must be signed by one of the parents of the child as well as by the child. To the educator as well as to the ordinary layman interested in educational matters, the significance of tying the school curriculum with the home is apparent. It is also significant that the Crusade by virtue of the chore record has in many instances stimulated interest in personal hygiene in parents.

3. Awards

The Crusade has always endeavored to stimulate competition and to give to the humdrum health duties of the child a romantic significance. In other words, the Crusade takes washing behind the ears out of the ordinary category of disagreeable tasks and makes it a game. The revolutionizing effect of this method is apparent at once.

Everything that the Modern Crusade manual and other publications recommend beyond these three essentials is optional and not required. Any school or any group of children can have the Modern Health Crusade with these three essentials. This means that the Crusade may be conducted with only one style of chore record and with the most simple means for rewarding the children, such as, for example, a star on a roll or blackboard, or a badge, or a title, or possibly a grade in the school curriculum.

In order to meet the second problem of the Crusade, namely, that of supplying interest to the child, teacher and community, the National Tuberculosis Association recommends a number of additional activities described at length in the Modern Health Crusade manual. It should be emphasized again that all of these additional activities are, however, optional and not necessary.

For example, a great many of the schools have asked for sets of chores in graded divisions so that pupils doing Modern Health Crusade work in successive years need not do the same chores. The National Tuberculosis Association has met this demand with four sets of graded chores recommended for third, fourth, fifth and sixth grades. A syllabus is now being developed on health teaching in the public schools centering about the Modern Health Crusade and designed to give to teachers a method for instructing their children in the acquiring of health habits.

The National Tuberculosis Association has also recommended the use of graded insignia of various kinds, including certificates, buttons, pins and badges, all of which are supplied to those who wish to use them.

Furthermore, the participation of the school children in local, state and national tournaments has proven a great stimulus in the Modern Health Crusade. The rivalry of individual schools and of cities and states for cups, banners, pen-nants, etc., has done much to solve this problem of supplying continued interest to the child, the teacher and the community.

Another step in the same direction has been the employment of pageants, plays, health clubs, the Order of the Round Table, with its requirement of physical examinations, posture and nutritional tests, etc., and a great variety of similar activities. All of these efforts are designed to make what might become merely a perfunctory classroom exercise both a school and an extra-school activity. Thus the parents and the community as a whole are stimulated by the child's enthusiasm, and the child himself comes to appreciate that it pays to perform the chores specified in the Crusade curriculum.

CONCLUSION

It will not be necessary to go into exhaustive details regarding the technique of the Modern Health Crusade in this chapter. These details are discussed in full in the manual of the Modern Health Crusade and in other publications of a similar character issued by the National Tuberculosis Association and by its several state and affiliated organizations.

It should be noted, however, that the Modern Health Crusade is not the only method of health education of school children. The health club, the health game, and a number of variations, some antedating the Crusade and some growing out of it, are in vogue all over the United States. The Modern Health Crusade has up to the present time been the most successful of the various systems of health education of school children in developing health habits and in promoting community health spirit. As a system of training in habits by practice, it readily fits in with all other schemes which aim to teach health by precept.

SELECTED REFERENCES

- DANSDILL, T. Health Training in Schools. New York City, National Tuberculosis Association, 1923.
- THE MODERN HEALTH CRUSADE. Manual for Teachers, Superintendents and Health Workers. 5th ed. New York City, National Tuberculosis Association, 1922. 48 p.
- OHIO STATE DEPARTMENT OF EDUCATION. Course of Study in Hygiene. Prepared by Virginia Lewis. Columbus, Heer Printing Co., 1921. 282 p.

ARTICLES

- DE FOREST, C. M. The children's crusade for health. *Journal of the National Education Association*, 11:103-4, March, 1922.
- DEWEES, A. M. Importance and value of crusade work. *Bulletin, Pennsylvania Tuberculosis Society*, p. 3, August, 1922.
- OSBORNE, M. G. The crusade in the school and community. *Public Health, Michigan Department of Health*, n. s., 9: 270-74, August, 1921.
- WILLIAMS, H. V. A children's health crusade. *Health Builder*. v. 1, March, 1923, p. 379-83.

CHAPTER VI

THE SPOKEN WORD

It goes almost without saying that, if the message of tuberculosis prevention could always be carried by means of the spoken word in the mouth of a convincing speaker, it would have more weight than any kind of printed or graphic presentation. The human touch gives not only a more intimate opportunity for presentation, but also a more direct and vital approach. To the salesman of community health, however, the difficulties of presenting his message by means of the spoken word to every man, woman and child in a given population are almost insuperable. He can personally reach only a few selected individuals. He can address an audience here and there. He can reach with selected speakers a certain percentage only who can understand the spoken word or who can be reached with it. Such limitations of the spoken word should be appreciated in considering its relative value as compared with other methods of health education.

LECTURES VERSUS TALKS

A few years ago it was customary to announce lectures on tuberculosis. Today one seldom hears of such formal announcements except in semi-scientific or scientific circles. The "talk" has superseded the lecture. The difference between the lecture and the talk may be in name only or it may be in form as well. The average audience does not like to be lectured, for the lecture has in it the element of formality, but it is willing to be talked to.

The distinction between the lecture and the talk, however, is a more fundamental one. The lecturer usually presupposes an audience selected for the *particular* purpose of listening to him. The talk, on the other hand, as it relates to tuberculosis especially, is today given to hundreds and thousands of

ready-made audiences. The alert tuberculosis executive will find everywhere audiences already gathered together who are willing to listen to talks but decidedly unwilling to hear lectures. Such groups, for example, as one finds at the noon-hour in a factory, in a school classroom, at the close of a lodge or labor union meeting, at a Sunday morning or mid-week church service, on a street corner, or at a county fair booth, are ready-made audiences. To them a talk, if it is of the right kind, can make a strong appeal.

ESSENTIALS OF A GOOD TALK

A talk on tuberculosis in order to be successful calls for certain essentials in the personality of the speaker as well as in the subject matter presented.

1. Personality

It is a mistake to ask a man to talk tuberculosis before a ready-made audience if he is not a fluent speaker. Many an opportunity has been wasted by a speaker who halted or was obliged to read a five- or six-minute talk, or had to refer to notes when he should have been so full of his speech that it fairly oozed out of him. The speaker must have enthusiasm and vitality. He must also have adaptability. It is one thing to talk to a group of workers in a shipbuilding plant; it is another thing to talk to a group of girls in a department store, and still another to address the members of a woman's club. The speaker must have poise and dignity, but at the same time he must be human and not talk *at* the people nor *down* to them. He must talk *with* them.

Too often a tuberculosis executive makes the great mistake of asking the president of his organization, who may be a prominent physician or a prominent banker, to give a talk on tuberculosis just because he is prominent and president. The net result in many such instances is failure. A poor talk does much more harm than good. It is better to have no speaker at all than to have one who is incompetent. The kind of talk

here being considered requires a peculiar and specially adaptable type of personality and ability.

2. The subject matter

The subject matter of a talk to ready-made groups must necessarily keep itself within the narrowest possible confines. The primary reason for this is lack of time. Most talks for ready-made audiences are limited to ten minutes and it is doubtful if a speaker is ever warranted in going beyond that limit. A talk of five or six minutes' duration is better if he can say what he needs to say. This limitation has one important advantage—it requires that, instead of talking about tuberculosis, the speaker talk about one or perhaps two specific phases of the problem, which is as much as an average audience can absorb at one time. The talk stands in the same relationship to the printed word that the brief snappy circular does to the larger monograph or book. The talk should not be a discourse but an intimate, personal presentation of one or two phases of the subject, addressed to a particular group.

The subject matter must necessarily be adapted to the group. A speaker before a group of bankers might talk about statistics and facts that are of interest to bankers. A speaker before a group of high school boys might try to catch their fancy by appealing to a subject that is of vital and everyday concern to them.

OPPORTUNITIES FOR TALKS

Large numbers of men and women can be effectively reached through a skilful talker or talkers if the work is properly organized. The reason why the spoken word is not used as intelligently and properly as it should be is because it is difficult to organize a community for a speaking campaign. It is much easier to print and distribute circulars than it is to organize a talking campaign and get the right kind of speakers before a variety of audiences. The printed word may reach ten times as many people as the spoken word, but the effect of the spoken word may perhaps be more than ten times as great as the effect

of the printed word, particularly if it is reinforced with the printed word.

Lodges, labor unions, social clubs, business organizations, religious and educational institutions, all these afford opportunities for talks. It is not necessary to ask for a whole evening or a whole service. A four-, five-, six-, or ten-minute talk incidental to the normal exercises of the organization affords a much better opportunity, as a rule, than an entire hour or session given over to tuberculosis, especially if the short talk can be followed by a similar one later. The right kind of speaker usually succeeds in securing an invitation to return, if he does not tell his entire story upon his first visit, and it is much more effective to speak twice before the same group than it is to tell all one knows on the subject upon one's first appearance.

Speakers who can do this type of work are not very numerous. They need training. Most of them cannot serve as volunteers and must be employed on whole or part time. This is true where a man is obliged to attend evening meetings of labor unions or lodges. The right kind of man can by his talks make invaluable contacts for the local or state association employing him.

THE ILLUSTRATED LECTURE AND THE OBJECT TALK

It is doubtful if the so-called illustrated lectures now being given on tuberculosis are worth the time and effort on the part of the speaker and the audience. The type of lecture, for example, that progresses with the following formula: "The next slide tells about the tubercle bacillus," or "The next slide shows a child in a sanatorium," and so on, had better not be given. The skilful lecturer in using lantern slides will not discuss the slides themselves but will use them as an opportunity to bring home to his audience some of the essential features of his message. He may give his talk first and then show his slides afterwards, for in most instances the slides detract from the speaker, a fact that is particularly true of a subject like tuberculosis. We revert in this connection to the reference

about demonstrating exhibits. The lantern slide that must be demonstrated had better not be shown. The average lecture with slides is nothing more or less than a continuous demonstration of slides. As such, in most instances, it bores the audience and produces an undesirable effect.

On the other hand, the use of slides unaccompanied by a talk, provided the slides are so arranged that they can tell their own story, may be of advantage. There are mechanical devices such as the Stereomograph or the Animatoscope that can be used for this purpose, or where there is a continually changing crowd, the slides may be run through an ordinary machine by an operator.

Contrasted with the lantern slide is the object talk. This may be accomplished either with a slide or with actual objects. Dr. W. W. Peter of Shanghai, Medical Director of the China Health Council, brought to the United States in 1915 some interesting ideas regarding his use of the object talk in the East. While his general conception of the talk was not new, it gave a new impetus to this type of address in this country. The skilful lecturer can take a group of objects and by exhibiting and demonstrating them in certain ways drive home many vital health lessons. Suppose he illustrates the number of deaths and cases of tuberculosis by bottles containing different colored beads. Or he may illustrate the steps in health-building by erecting a small flight of stairs while he talks. This is object-talking. The lantern slide may answer a somewhat similar purpose if it is especially made and worked out to fit a particular talk.

TALKS TO CHILDREN

Children present such specialized audiences that great care should be taken in selecting the speakers who are to address them. It is rare indeed to find a person who talks well to children. The speaker who proceeds to address a group of youngsters in the following manner should be strictly taboo: "Ladies and Gentlemen, I want to talk to you about the tubercle bacillus." This example was an actual occurrence in which a prominent physician was the speaker.

A skilful speaker can bring a lesson home to children by using the point of a pencil, or referring to some incident immediately happening in the schoolroom, or catching the fancy of the boys and girls with a clever story. A talk to children must always be short, never more than ten minutes. It is, moreover, only an occasional speaker who can hold a group of children as long as ten minutes without having them wiggle in their seats. Experience has shown that where the right kind of person can be secured the amount of good that can be accomplished in this way and by working in connection with the Modern Health Crusade is incalculable. There are few ready-made audiences that offer a finer opportunity for the right kind of speaker than school children. There are few groups that will be more readily antagonized by the message presented than these same children if the message is presented in an uninteresting fashion.

MASS MEETINGS

Beware of mass meetings that do not mass! This dictum out of the experience of scores of tuberculosis workers may well be taken into consideration by some of the newer and more enthusiastic executives to whom the mass meeting appears to be the easiest way of arousing public opinion.

A mass meeting is in a sense merely an effort to bring together in some spectacular manner large numbers of people to listen to a number of stated talks on tuberculosis. If the subject of the mass meeting is one on which community consciousness has been thoroughly aroused by certain definite issues, such as the question of a county tuberculosis hospital, it is possible under some circumstances by hard work to organize a mass meeting successfully. The amount of publicity required in advance and the amount of energy necessary to put into the meeting makes the venture of questionable value. Weighing the same amount of energy utilized in talks before selected groups or ready-made audiences, one wonders if the mass meeting is worth the effort.

If the mass meeting seems to be the only way to arouse attention, a few suggestions with regard to baiting an audience to attend may be mentioned.

For example, the use of a popular singer, a band, or some other attraction incidental to the speakers may be desirable. A few years ago in a middle western city at the time of a large convention of social workers, an effort was made one evening to hold a mass meeting in the largest convention hall of the city on a subject of vital social significance. The attendance was miserably small and for the most part was made up of delegates to the convention. Two nights later, the enterprising health officer arranged a mass meeting on health, utilizing some of the speakers attending the convention. He printed tickets, and through the policemen, firemen and other public officials, as well as through the newspaper press, distributed thousands of them to the general public. The tickets advertised that certain well known vaudeville stars would speak. The mass meeting was really a vaudeville show with incidental speeches. The hall was packed and the speeches were listened to with attentive interest. Does one need to ask the question, "Which is the more effective method?"

INSIDE SPEAKERS

Finally, the spoken word may be presented to interested groups not necessarily by an outsider or a representative of the tuberculosis association, but by a representative of the group itself. Labor, fraternal, social, business and other groups of the community have speakers of their own who can be trained in the subject matter of tuberculosis and who can in many cases present the message in an effective way. The opportunity to develop this kind of talking material should not be lost. Too often it is.

In general, the spoken word seems to be falling into disuse among tuberculosis organizations. A recrudescence of the spirit of 1917 when the four-minute talkers covered the country with the spoken word is desirable. Will anyone deny the value of that wholesale presentation of patriotism to ready-

made groups, and will anyone question the relative value of these four-minute talks as contrasted with the comparatively few stated lectures and orations? Tuberculosis workers are losing an opportunity in not organizing the talking facilities of their community as they should.

SELECTED REFERENCES

- PATTISON, H. A., AND MARSHALL, M. E. An Outline of Lectures on Tuberculosis for Nurses, Occupational Aides and Social Workers. New York, National Tuberculosis Association, 1921. 15 p.
- TALKING POINTS ABOUT TUBERCULOSIS. Rev. ed. New York, National Tuberculosis Association. 1923. 16 p.
- UNITED STATES FEDERAL BOARD FOR VOCATIONAL EDUCATION. A Tuberculosis Background for Advisers and Teachers. Washington, Government Printing Office, 1920. 42 p. (Bulletin No. 59. Reëducation series no. 8.)
By John W. Turner.

ARTICLES

- HUBBARD, S. D. Suggestions to public health lecturers. Monthly Bulletin, New York City Department of Health, 12:225-30, October, 1922.
- MALTBY, F. A talk on talking. Public Health Nurse, 13:119-21, 207-208, 253-54, March, April, May, 1921.

CHAPTER VII

MOTION PICTURES

The phenomenal development of the motion picture industry in the United States within the last ten years has given to the tuberculosis executive and the health salesman a new tool of great potential value. The motion picture as an educational medium is still in its infancy as it relates to public health agencies. The rapidly developing progress both in the theatrical and non-theatrical production and distribution of motion pictures will undoubtedly render whatever may be said in this chapter out of date in relatively short time.

The first motion picture on tuberculosis, entitled "The Red Cross Seal," was made in 1910 by the Edison Company co-operating with the National Tuberculosis Association. For several years thereafter, until that company went out of business they made annually at Christmas time a motion picture dealing with phases of the tuberculosis problem. Tuberculosis workers will recall "The Awakening of John Bond," "The Price of Human Lives," and others. Changes in the motion picture industry itself, particularly those changes that have had to do with the consolidation of producing and distributing agencies, have made it increasingly difficult to get commercial producers and distributors to undertake pictures dealing with tuberculosis as a strictly commercial venture. This in turn has influenced the National Tuberculosis Association and other health agencies in entering the motion picture production and distribution field. In 1916 the National Tuberculosis Association produced its first motion picture, a two-reel film entitled "The Great Truth." In 1919 the Association produced "The Modern Health Crusade," and in 1921 "The Tournament of Youth." Within the last three years a number of state and local associations and some of the sanatoria have also produced pictures, most of them educational, dealing with various phases of their own work.

PRODUCTION

1. Difficulties

The production of motion pictures by any social agency is fraught with a great many difficulties. Many thousands of dollars have been wasted on pictures that were poorly produced. There are hundreds of firms in various parts of the country that are ready to sell a so-called "service" in the production of motion pictures. Usually this "service" when boiled down means that the tuberculosis or other social agency assumes all the risks and the producer pockets all the profits. The production of health motion pictures is still in that stage of development where the tuberculosis agency must gamble on a possible return either in cash or in education before undertaking the production of a picture.

2. Scenarios

The first essential in a motion picture is a scenario. There is undoubtedly a very definite technique in the preparation of a scenario, but it is perfectly obvious that the most essential points of an educational picture are its propaganda and its "human interest" qualities. Given a proper story, scenario writers by the score can be secured to write a "continuity" or working script. Numerous efforts have been made in tuberculosis and other health films to mix education and drama, but thus far very few films have been produced that have successfully accomplished the mixture. Either the drama is subordinated to the educational message or, as more often happens, the educational message is subordinated to the drama. The net result is that the average propaganda film cannot compete successfully with Charlie Chaplin, Mary Pickford, Douglas Fairbanks or any of the other well known motion picture stars. The most successful educational scenarios so far evolved have been those which very clearly bring out the essential message of tuberculosis and, if there is a story, make it incidental. That is, an educational picture should frankly make an appeal not as entertainment *per se*, but as entertain-

ment mixed with education or possibly as education mixed with entertainment.

3. Making the picture

In the making of a motion picture the producer is a very essential consideration. Not every man who can turn the crank of a motion picture camera is a producer. A high degree of artistic skill is needed in the arrangement of groups and characters, and in the production of scenic effects in connection with a motion picture. Recently, for example, two motion pictures of sanatorium life were issued. One showed a number of scenes of patients in more or less commonplace attitudes—going to the dining room, sitting in the dining room, reclining in their chairs; and scenes about the stable, chicken coops, etc., but these were utterly devoid of artistic effects. The other produced some beautiful scenic and artistic effects as well as all the educational material necessary, and by contrast presented a most pleasing picture showing the attractive side of sanatorium life. Incidentally, the latter contained no dramatic plot, or “love interest” which many producers consider so essential. The difference between the two pictures is not in the kind of institution or in the money invested. In this case it is entirely in the relative artistic skill of the producers.

Motion pictures may be presented by means of ordinary photography of people and scenes, or by animated cartoon drawings. The latter method is particularly good, if well done. “Jinks,” a picture illustrating medical examination, has been very popular. It is almost entirely in animation. The photography of a picture should be of the highest quality. A tuberculosis association produced a picture of its summer camp in which the photography was so poor that many of the scenes could hardly be seen. The lighting effects were wretched. Considering the amount of money paid for the film, the tuberculosis association was very badly overcharged.

The editing of a motion picture also requires a good deal of skill. The rearrangement of the material, the insertion of the titles in proper place, and especially the writing of the

titles, all require a high degree of technical ability. It is a great mistake to presuppose that simply by turning a crank on a certain scene or group of scenes one can take a motion picture.

4. Accuracy of presentation

It is, of course, presumed that no motion picture will be taken without the greatest care being given to accuracy of detail. This applies particularly to pictures where a certain amount of "make-believe" or dramatic material is used. Such scenes as those in which a doctor shakes down the thermometer after taking it out of the patient's mouth and before reading it, are to be watched for. If a medical examination is to be given, it must be enacted in accordance with the highest medical standards. If a nurse is present, her technique must be faultless. In general, the greatest care must be used to have every detail of the film supervised so that accuracy of detail is assured.

5. Costs

Motion pictures may cost from 50 cents per negative foot to \$1000 or more per negative foot. Outdoor scenes where no special lights are necessary and where no professional actors are required can be produced for approximately 50 cents per negative foot. If lights are required, particularly for indoor or partially indoor scenes, the cost may be increased 25 cents a foot or possibly more, depending upon the amount of lighting necessary and the accessibility of the location. If studio work is required with special sets and actors, the cost increases according to the amount of scenery necessary and the quality of actors used. From \$2.50 to \$5.00 or \$6.00 per negative foot is a fair average for this type of production. This provides for a fairly high grade standard of acting and for a proper amount of stage setting. If the scenes require large numbers of characters and very elaborate stage lighting and producing effects, the cost will, of course, be considerably increased. Animated or cartoon pictures cost from about \$3.50 to \$6.00 per negative foot.

Motion picture producers usually figure their costs on the basis of so much per negative foot. They determine the cost from the character of the scenario submitted, the amount of indoor, outdoor, studio, animated and other work required. The cost usually includes the negative, which becomes the property of the association paying for the picture, and one print. Additional positive prints from the negative are charged for at so much per foot. No tuberculosis association should pay more than 5 or 6 cents per foot for its positive prints if it owns the negative. (Unscrupulous producers have been known to ask and charge as high as 15 cents per foot.) If non-inflammable stock is used, the price per foot may be slightly higher.

DISTRIBUTION

The distribution of motion pictures may be considered under two main heads: first, theatrical distribution and second, non-theatrical distribution.

1. Theatrical distribution

Any attempt to distribute motion pictures in the ordinary motion picture theatres requires as a rule that the picture be short, usually not more than one reel. A two-reel or longer picture, unless it be of unusual merit or of peculiar local interest, is not apt to get a showing. A one-reel picture can usually be wedged in between the features of the ordinary program.

In arranging for distribution of pictures to theatres, it is well to see each theatre manager personally and to make the necessary arrangements. In communities of moderate size, where the number of theatres is comparatively small, and where the manager must depend largely upon community support for his venture, he is usually willing to show a motion picture that has local interest or that is sponsored by a representative local organization such as a tuberculosis association, provided the matter is put up to him in the right way. It is necessary in all such instances to furnish the manager with the reel sufficiently in advance and usually to see to it that the reel is taken away

after the performance or performances. The Motion Picture Theatre Owners of America have announced their desire to coöperate with social agencies.

2. Non-theatrical distribution

In the field of non-theatrical distribution the tuberculosis association finds its largest and increasing usefulness. Motion picture projection is now being developed to that degree of efficiency where nearly every progressive church, school or other community meeting place has a machine and booth. The opportunities for showing motion pictures outside the moving picture theatre are growing over night. Those who are in position to know prophesy that within a relatively short time the non-theatrical audiences for motion pictures will exceed the hundreds of millions of theatre-goers now viewing motion pictures every year.

Most of these groups are glad and anxious to show motion pictures dealing with health subjects provided they are given sufficient notice in advance. Because of the fact that the average equipment is usually one machine, it is wise not to attempt to show more than a one-reel picture. A multiple-reel picture shown with one machine, where the wait between reels is necessarily three to five minutes, loses a great deal of its force.

3. Available pictures and information

The National Tuberculosis Association has a limited motion picture service for health films. Some of the other national agencies, such as the American Red Cross and the American Social Hygiene Association, also have motion picture services. The National Health Council is developing a Health Films Service designed to act as a clearing house on all matters dealing with motion pictures. Persons interested in the production or distribution of motion pictures should communicate with this service at 370 Seventh Avenue, New York City. A list of available films dealing with various health subjects may be procured from the National Tuberculosis Association.

MOTION PICTURE MACHINES

An ever increasing number of tuberculosis associations are now purchasing motion picture projectors for their own use. In this connection it is well to remember that it is advisable to purchase a machine in which a reel of standard size can be used. Otherwise the purchaser will find that he is unable to rent any health films with the exception of those procurable from the manufacturer of his projector; or he must have a special print made of every film he wishes to use, which is expensive.

RELATIVE VALUE OF FILMS

The health film as an educational medium has distinct value, but as compared with some other methods of health education its value is limited. It is, in a sense, like the poster. It creates a fleeting impression. Both in theatrical and non-theatrical audiences the health motion picture is usually an adjunct to an entertainment. The audience is there for the purpose of being entertained or amused. Such educational material as may be shown on the screen is looked upon in the light of a more or less necessary evil. The group is usually glad to get it over with and to view the feature picture of the evening. The health lesson, therefore, that a motion picture brings must compete in the audience's memory with all kinds of theatrical nonsense and drama.

Accompanied by a talk, the motion picture sometimes has a more permanent value. Even here, though, it is questionable whether the investment of several thousand dollars in the production of a motion picture to be accompanied with a talk is worth while. Would not the same amount of money put into more talks without the motion picture or in some other educational work produce an ultimately more effective result?

Health films must be viewed as one of those highly desirable and necessary educational media that should become a part of the continuous extensive and intensive educational campaign in any tuberculosis association. They are usually a very expensive method, especially if the local or state organiza-

tion must produce a picture. Where proper films can be rented and the distribution is the only expense, their relative value is greatly increased.

SELECTED REFERENCES

BOLLMAN, G., AND BOLLMAN, H. Motion Pictures for Community Needs, a Practical Manual of Information and Suggestions for Educational, Religious and Social Work. New York, Holt, 1922. 298 p.

NATIONAL HEALTH COUNCIL. List of Health Films. New York City, 1922. 49 mimeographed leaves.

ARTICLE

Symposium on motion pictures. Principal discussion at first session of Health education and publicity group. Fiftieth annual meeting, American Public Health Association, 1921. American Journal of Public Health, 12:269-79, April, 1922.

CHAPTER VIII

OTHER EDUCATIONAL METHODS

In addition to the usual types of educational methods discussed in the preceding chapters, there are a number of others of the "stunt" variety that can for sake of brevity be grouped together. The ringing of bells, the firing of bombs, the use of bands, drum corps, tom-toms, and similar devices have long been in vogue among tuberculosis associations. These devices have merely a passing value. They attract attention and that is all. There are, however, a considerable number of methods that have more than this passing value. A few of these will be discussed in this chapter.

THE HEALTH CLOWN

The American Child Health Association is the pioneer in introducing the health clown. Hundreds of health clowns—national, state and local—with every conceivable combination of name, are now imitating "Cho Cho," the original.

The health clown is primarily an educational device to appeal to school children and is not to be confused with the entertainer of the circus or of the county fair. The clown is and should be, first and foremost, a teacher. His antics, his make-up, his entire presentation are contributory to the lesson that he brings to the children. Millions of children have now been reached with a personal message regarding their habits of diet, cleanliness, posture, etc., through the health clown. The grotesqueness of the presentation makes an impression on young children especially that it would be difficult to secure in another way.

A brief description of the technique of Humpty Dumpty, formerly Health Clown of the National Tuberculosis Association, will illustrate these points. "Humpty Dumpty" (Mr. Ray L. Law) dressed somewhat to imitate the fabled egg and

with a high silk hat, comes on the platform with a stepladder that typifies a stone wall and proceeds to tumble and fall over it in grotesque manner until the children scream with delight. After he has finished a preliminary series of tumblings and when he feels that the children are thoroughly interested and "with" him, he pauses and asks them the question "Who knows why Humpty Dumpty made you laugh?" He answers his question with these words, "Humpty Dumpty made you laugh so that he can see your teeth." He proceeds to bring home the health lesson of brushing the teeth—"Up and down, and round and round." The children repeat in chorus the phrase, "Up and down and round and round," and go through the motions of brushing their teeth at the same time. Similarly he tells them that coffee and tea are injurious but that milk is good and advises that they drink a pint of milk each day. The eating of vegetables, taking of baths, opening of windows, deep breathing and similar lessons are all taught by "Humpty Dumpty" in the same grotesque fashion. Each lesson is interspersed with funny antics so that the children are constantly responding to him with laughter and serious interest. His pedagogy includes constant repetition of his lessons. Again and again it has been noticed that after the performance is over the children go out repeating some of the phrases that "Humpty Dumpty" has been reiterating with them on the platform.

The value of this kind of teaching is great, particularly if it is reinforced with the Modern Health Crusade or with other types of personal hygiene instruction.

PARADES

The use of the special parade or the inclusion of a tuberculosis float in some other parade forms a dramatic and interesting way of presenting the subject of health and tuberculosis to a community. The idea of the Disease Prevention Parade originated in Indiana a number of years ago and has spread to various parts of the country. The parade is simply an effort to get merchants, social and civic agencies to prepare floats and

to present some health lesson by means of them. The float may advertise a commercial project, but it must also "get over" a certain health lesson. A large amount of rivalry in the parade may be stimulated, prizes being offered for the best floats. The value of the parade, as has been pointed out before, is not only in the event itself but in the publicity it excites, before, during, and even afterwards. It is, however, merely a passing device. Its best use is in connection with some large community demonstration, such as a campaign for a community hospital or an effort to secure a large appropriation for a health department or the Christmas seal sale.

Following the parade idea, the tuberculosis association in many communities has contributed a float to a carnival or some other kind of parade. In a number of communities the tuberculosis association floats have won first prize or second prize.

BASEBALL GAME

The baseball game as a stunt is peculiarly a St. Louis product. Mention of this has been made before in connection with creating publicity. For several years the St. Louis Tuberculosis Society has arranged with the proprietors of one of the big league ball parks in St. Louis to purchase the gate receipts for a given day, involving an expense annually of about \$20,000 or \$25,000. The services of two of the league teams are secured for that day and usually two amateur or semi-professional teams are secured, providing for a double-header. Prizes are offered, all of them donated by merchants, for people attending the game and getting lucky numbers. The patrons of the game are played up in advance with wide publicity. The game itself is advertised through the sporting columns. For three weeks preceding the game an immense amount of publicity is secured in all of the St. Louis papers. At the game itself a feature program is distributed in which not only the work of the St. Louis Society is told, but a good deal of educational material regarding tuberculosis is printed. The game itself affords an opportunity for presentation of prizes and for bring-

ing together a large number of people who become more vitally interested in tuberculosis in this way. The profit from the game usually brings to the St. Louis society approximately \$20,000 net.

The value of this idea lies primarily in that it reminds the people of St. Louis of their responsibility to the organized community agency for the control of tuberculosis, and it creates an atmosphere of good will for the society and its work. It also results in a vastly increased number of inquiries from individuals and groups for assistance and advice in reference to problems dealing with their health, a service that the St. Louis Society is anxious to cultivate.

PAGEANTS AND PLAYS

The use of health plays as an educational medium is now becoming fairly common. The health play idea is only about five or six years old. The health play presupposes primarily the participation of children and has been used, for the most part, as an adjunct of the Modern Health Crusade. There is no reason why it should not be used in connection with adult groups as well. A community pageant, for example, dealing with the tuberculosis work may be of a much wider scope than the ordinary simple health play. The dramatic presentation of health subjects, either historically or didactically, offers an opportunity that can be much more widely utilized than it has been thus far. Such a community pageant has been widely used in Ohio.

The value of the health play and pageant as an educational device lies primarily in the interest stimulated in the actors and those who are immediately interested in the actors. In a sense the health play is comparable to the motion picture. Its message is a fleeting one but it forms a legitimate part of the program of a community.

The National Tuberculosis Association publishes a series of health plays and will advise with local groups on the production of pageants. A circular on plays and pageants will be sent free on request.

MARIONETTES

The revival of interest in marionettes, stimulated largely by Tony Sarg and his associates, has offered an opportunity for tuberculosis agencies to use this device in health teaching. Through the National Tuberculosis Association one of the manufacturers of marionettes, Martin Jenter, 805 South Columbus Avenue, Mount Vernon, New York, has produced some standard marionette theaters and puppets that can be easily manipulated by amateur performers with a little practice. The National Tuberculosis Association has written a play for these puppets and will produce others if there is sufficient demand. Information concerning the marionettes may be secured from the National Association.

TOY THEATERS

The toy theater is more or less in the nature of an offshoot of the marionette theater.

"Tiny Tim's House," devised by the National Tuberculosis Association, is a cardboard theater, size 36 x 22 inches, in which the principal characters are dressed-up vegetables such as "Micky Potato," "Cry-baby Onion," "Fluffy Spinach" and "Mistress Bread." The entire device is inexpensive, only \$5.00 with the costumes or \$2.00 without the costumes, and can be used in classrooms and clubs to great advantage. Children can easily be trained in the use of characters and the entire theater.

"Mary Gay's Theater" is another device, using paper dolls chiefly, in a compact suitcase theater. It is more expensive than the "Tiny Tim's House," price \$25.00, and is more difficult of operation and use.

GENERAL CONCLUSION

This and the preceding seven chapters have dealt exclusively with educational methods as a part of the general subject of methods of tuberculosis work. The exhibit, newspaper, magazine, the printed word, the Modern Health Crusade, the

spoken word, the motion picture, special stunts and devices—all of these have their part in an educational program. No attempt has been made to make the category of special devices exhaustive. One might include poster contests, essay competitions, the collection of waste paper, and a great variety of other devices that have been used in past years.

Sufficient has been said to emphasize the necessity for an educational campaign being extensive, intensive and continuous. To accomplish this end, one must rely upon all the various devices mentioned and many others. The success of an educational selling campaign on tuberculosis depends upon the ingenuity and initiative of the salesman. The executive who takes merely the suggestions from this book and considers them as the last word is very apt to meet with failure. He must be constantly on the alert for ways in which to bring his message to the people in a dignified or dramatic manner that will drive home the lesson that tuberculosis is a disease with widespread infection and that it can be controlled by preventing infection and building proper resistance.

SELECTED REFERENCES

PLAYS AND PAGEANTRY. A List of Health Plays Recommended by the National Health Council. New York, National Tuberculosis Association, 1922. Folder.

TAFT, L. The Technique of Pageantry. New York, Barnes, 1921. 168 p.

ARTICLES

HAVILAND, F. E. The health play as first aid to nutrition workers. *Commonhealth*, (Massachusetts Department of Public Health), 7:387-90, November and December, 1920.

New York holds unique health parade. *Nation's health*, 3:335-36, June, 1921.

WILLIAMS, H. V. "Clowning" for health. *Bulletin, National Tuberculosis Association*, 7:2, 9, March, 1921.

CHAPTER IX

ORGANIZATION METHODS

Too often constitutions and by-laws of social agencies have been hastily and poorly prepared, In many instances they have been so ignored that the form of an organization is apt to be given little consideration. The experience of tuberculosis associations in the last fifteen years clearly proves that the form of an association is vital to its entire efficiency. By organization methods are meant here those means applied to bring a new association into existence or to reconstruct an already existing organization, as well as those employed to keep the society going smoothly. The form and not the content is the subject primarily of this chapter. One might remark in passing that practically this entire book is on organization methods.

Historically considered, most of the tuberculosis associations in this country have grown out of the interest of one individual or a small group of individuals. This individual or the group have in turn been stimulated by some other outside agency, usually the national or state tuberculosis association, and have received from this outside agency a vision of the possibilities of local organization. In most instances the immediate stimulus has been concrete and direct. The Christmas seal sale, for example, the need for a county hospital or a public health nurse, a patient or group of patients needing assistance,—these have been a few of the stimuli that have been applied to individuals and groups to further local organization.

FORMING THE ORGANIZATION

1. Preliminary steps

Experience in organization has developed a certain amount of technique. This technique includes some preliminary steps leading up to the final organization, though not every associa-

tion that has been formed has gone through all of these preliminary stages. Usually the first preliminary step is to call together the initial group into conference. An organizer may come into a community and ascertain that a certain individual is interested because of personal reasons or otherwise and thus he secures through the local man's or woman's influence a hearing with a wider group. At this initial conference the entire need for some more permanent organization may be considered.

2. Financial situation

The financial situation must be manifest at the very beginning to ascertain if there are sufficient funds in sight to make an association worth while and possible. Two things must be clear at these initial conferences, first that there is a real work for the association to do, a program; and second that there are funds and people available to do the work. Many a paper organization formed on enthusiasm without consideration of these fundamentals has later been a stumbling block to real progress.

3. Organization committee

An organization committee may then be formed with powers of a broad character, to frame a constitution and by-laws and to draw up a slate of directors and officers to be submitted for ratification at a later organization meeting. The organization committee is really the steering body that is to bring the new organization about.

4. Selection of directors and officers

The organization committee with the assistance of the organizer or by itself proceeds to canvass the possible directorate of the association. All of the various elements of the community should be considered and a list of directors should be drawn up. Out of the list of directors a group of officers is selected. The persons chosen ought to be asked in advance if they will serve. To do otherwise is to invite disaster by the refusal of some who are counted upon.

5. Constitution

A constitution and by-laws may be drawn up by the organization committee along lines approved by the state and national associations. A further discussion of this is given below.

6. Organization meeting

An organization meeting may then be called at which the informal organization committee presents its report. If the meeting is properly handled the report is usually adopted and the association is thus fully launched with constitution and by-laws, officers, directors, etc.

7. Executive secretary

If the funds are available, an executive secretary should be engaged. If not, sufficient funds should be sought. Meanwhile the volunteer workers of the association should begin activities along the lines of a program previously mapped out.

This method of forming an organization is but one of many that have been used in all parts of the country. It is naturally best adapted to those communities in which relatively little preliminary work has been done, of which there are few at this time.

SOME OBSTACLES

In this process of organization certain obstacles will usually have to be met and overcome. There are always some persons who frown upon any effort to form a tuberculosis association. Some of them, for religious reasons are opposed to organized health work of any kind; some are self-interested and are fearful that a tuberculosis association will hurt their business. Others object on the grounds that the association is unnecessary or that it should be a part of some already existing body. These personal objectors must be met and their objections overcome if possible. It is always well to be prepared at the organization meeting to meet open opposition. The organization meeting is apt to be, and preferably should be, a somewhat

cut-and-dried affair, but opportunity should be given for objection.

Besides personal objectors there are related organizations which may bring pressure to bear to prevent the organization of a new association. In some instances these objections are insuperable. Not every group of enthusiastic workers who start out to form a tuberculosis association are traveling along sound lines. Some of them may be developing a plan which is distinctly unsound. In any case the objections should be met and overcome or set aside.

CONTENTS OF CONSTITUTION

The constitution and by-laws of a tuberculosis association should be framed to provide certain definite measures in the way of form or organization, such as

1. The name and purpose

This should be stated as simply as possible. The tendency in recent years is to shorten the name of associations considerably as, for example, the New York Tuberculosis Association. The purpose should be broad and inclusive but should specifically deal with tuberculosis. A tuberculosis association may have a broad public health purpose, but still be a tuberculosis association.

2. Membership

Membership should be outlined in classes. A local association may well provide for general membership, possibly for a sustaining membership, and also for a life membership. The membership dues should be definitely specified. Most local associations have proceeded upon the assumption that dues, particularly in view of the Christmas seal sale, should not be more than about a dollar a year. Life members may pay \$50 or \$100. For state associations the dues should be somewhat higher, as they are for the National Association. The underlying assumption here is that neither the state nor the National

Association will attempt to solicit membership in the local community at the expense of the local association. In other words, they will solicit membership only from those individuals who have sufficient money and vision to support local, state and national work. If a vigorous seal sale is conducted an independent membership solicitation may be undesirable. In this case, the constitution should allow persons to become members who buy a certain number of seals, say \$2.00 worth or more. It is always desirable and essential that a tuberculosis association have a regular, duly authorized membership which is clearly defined by the constitution. (See Chapter on Financial Methods, p. 209.)

3. Board of directors

The board of directors should be representative of the community. It should cover the territory geographically and by interests. This means that the board should not be "cliquey." For example, it should not have too many physicians. It should be well balanced as to its medical and lay members. Similarly, with regard to men and women there should be a certain balance. It should not be composed entirely of members of "our set." Too often associations have been wrecked at the outset by the enterprising enthusiasm of one or two leaders who have kept the organization entirely within one social set of the community. Tuberculosis is a community problem and is no respecter of groups. The board of directors, therefore, should represent labor, capital, men, women, physicians, laymen, social workers, contributors, bankers, clerks, church, public officials, and so on throughout the entire organized community life. In a state association definite representation should be given to local associations.

The board of directors should be elected by the membership of the association. Constitutions that have provided otherwise, such as for a self-perpetuating directorate or for a directorate elected by certain groups or committees, have always spelled a certain amount of failure.

As to the size of the board, this will depend to some extent upon the community. For local associations a board of thirty or forty is usually large enough. For a state association the board may have sixty or more members. The board should be large enough in any case to provide for a sufficient representation of all of the various interests indicated above. It should also represent certain definite geographical units, such as a ward, district, town or village.

4. Officers

A tuberculosis association need not have an elaborate list of officers. A president, a vice-president, a secretary and a treasurer are all that are necessary. The secretary and treasurer may be combined in one person. There may be two or more vice-presidents for certain local reasons, especially if honorary representation is desirable. The tendency is toward simplification in the number of officers.

5. Executive committee

The executive committee should be composed of not more than nine members. Five or seven is a better number. With the exception of the president and possibly the secretary or treasurer, the other members of the executive committee should be elected by the board of directors. The executive committee should have all of the powers of the board of directors between the sessions. The board in turn should have full administrative control over the association. It should, of course, be understood that all actions of the executive committee are subject to approval or veto by the board of directors and ultimately by the membership. The executive committee in a state association or in a county association should be so formed that it can be easily brought together. A large executive committee or one that is scattered geographically over wide territory defeats the very purpose of its organization.

With reference to vote of the executive committee, it is sometimes desirable to have a vote by mail. Provision may be

made for a mail vote subject to formal ratification at a meeting of the committee. It is preferable to have sufficiently frequent meetings so as to obviate the necessity for mail vote.

6. Standing committees

As a general rule, it is well not to provide for standing committees in the constitution and by-laws. A constitutional standing committee usually develops at some stage of the association's experience into a cumbersome and harmful piece of machinery. This has been the experience in a number of local communities. Inasmuch as the board of directors or the executive committee can always appoint special committees, and can always discharge them, it is much better to allow for this procedure rather than to provide for them by constitution.

It is a great fallacy to expect a great deal of continuous service out of committees unless a paid executive is employed by each committee, which in turn becomes a cumbersome and extravagant method of administration. A committee may be depended upon to do special pieces of work, that is, it may serve more or less in the capacity of "scenery" for a special occasion. It may serve to investigate a certain procedure. It can do definite and specific, but not too detailed tasks. Again, it may approach certain groups such as boards of supervisors, chairmen of committees, legislatures, lodges, etc., especially those groups, where it can lend to the appeal necessary dignity and community prestige. The most vital service that a committee can render is in the creation of policy, in the planning of work and in counsel and advice to the paid staff. Here a committee is distinctly within its best realm of service.

Contrasted with the things that a committee can and should do, it is well to note some of the things that committees should not be called upon to do, although too often they are called upon to do them. No voluntary committee can be expected to give a great amount of attention to details. Committee men and committee women who are capable of service are usually busy people who have their own interests and to whom the particular task assigned is incidental. Furthermore, they

cannot give continuous service and should not be asked to do so. A few hours or a few minutes at a time are all that can be expected. Neither can one expect a committee to initiate methods and procedure. A committee may work out or criticize a procedure. In other words a committee should not be asked to take on administrative or executive functions.

7. Meetings

The constitution must provide for three groups of meetings: first, meetings of members; second, meetings of the board; and third, meetings of the executive committee. Members should meet usually once a year. It is difficult to get boards of directors even in local associations to meet more than four times a year, and in state associations it is often hard to get them to meet more than twice. The executive committee should meet at least once a month, except perhaps in summer, in either local or state association. If possible a weekly meeting in local associations at certain periods during the year, especially during the seal sale, is desirable. The most successful organizations are those where the executive committee meets frequently enough to maintain an intelligent interest in the work of the association. By this is not meant a meddlesome interest, but an intelligent appreciation of the details of the work that is going on, so that the executive secretary constantly receives the advice, criticism and encouragement of men and women who are working in business and in lines related to tuberculosis work.

The conducting of meetings is of the greatest importance. Too frequently busy men and women are asked to attend meetings where no one, not even the executive secretary or the president has any idea as to what is to be done until the meeting is assembled. The result is a lot of unimportant talk, especially by those who have pet hobbies to discuss and little or no real consideration of the serious problems of the organization. There are a few good rules for the conduct of meetings that are well to keep in mind, for instance:

a. Have a good presiding officer and see that he is present and informed. He rules or ruins the meeting.

b. Make the meeting interesting but not too long. Shut off all unnecessary talk by having each item of the meeting's program well presented and discussed briefly by someone who knows what it is all about.

c. Have the business of the meeting carefully outlined in advance and a copy of the agenda in the hands of each person present, if it is a small group.

d. If questions demanding some analysis and careful thought are to be discussed, send a detailed memorandum to each member in advance of the meeting. Some will read it and be prepared to discuss it.

e. The executive should lead his board, but should not dictate to them. He must know in minute detail all about every item on the agenda and be prepared to answer fully questions that will be asked.

THE EXECUTIVE AND HIS BOARD

The success or failure of most tuberculosis associations is conditioned upon the relationships maintained between the executive secretary and his board of directors or executive committee. If the board does not function, it is usually the executive's fault. If the executive does not work, it is often the board's fault. The board of directors is naturally the supreme governing and legislative body, but it must allow the executive to use his judgment and initiative. Otherwise he becomes a clerk or a hired man and not an executive. The executive secretary in his dealings with the board of directors should give careful consideration to some of the following points:

1. Personalities

Every board of directors has a few people of more or less difficult personality. The executive secretary can work with some much better than he can with others. He must, however, in all sincerity of purpose and honesty of endeavor, cultivate

and work with the most difficult personalities and be able to adjust the difficult personalities on the board to the other less difficult ones.

2. Information

Keep the board of directors informed. This is a dictum that should be emblazoned in red letters over the desk of every executive. A director appreciates his responsibility only as he has information concerning the organization with which he is associated. A weekly letter, a monthly letter, an occasional periodical telephone or other conversation,—these are only a few of the ways in which directors should be kept informed.

3. What the board expects

A board of directors and an executive committee may expect from the executive secretary—first of all, initiative; second, leadership; and third, vision. The executive secretary who expects to have the board of directors work out the details of his program or to determine for him how he shall proceed to conduct a particular line of endeavor is proceeding along the wrong lines. Suppose that the problem is to secure a county hospital. The board of directors naturally and rightly expects the executive secretary to work out the plan of procedure. They will criticize, they will advise, but it is the executive who must take the initiative. They will also expect him to lead the way and show them what they should do. They are busy men and busy women and they will do specific things if the executive secretary shows them what to do. He must not expect them to tell him what to do. Furthermore, the board of directors has a right to expect of the executive that he will have vision to see the problem not only in its immediate relations but in its implications for the future. They should expect him to exercise enough vision to work along sound lines and still not be too conservative in his action.

4. What the executive may expect

The executive may expect from his board counsel, guidance and service. He should expect the board to give to him the best advice that they possibly can. They should show him where he is likely to fall into a pit of difficulties in a community of which they know more than he can possibly know. He can rightly expect of them service. A director who holds a position and gives no service should be dropped from the board.

5. Qualifications of a tuberculosis secretary

The qualifications of a tuberculosis secretary are probably not different from the qualifications of many another executive. It should be borne in mind, however, that the tuberculosis executive is fundamentally a salesman. He is engaged in promoting a community enterprise. He is not primarily an investigator. He is a promoter. His qualifications, therefore, should take on some of those features. He should then be, (a) an administrator; (b) a promoter; (c) a dreamer; (d) a student; (e) a good fellow; and (f) a diplomat. This may be a somewhat ideal picture, but it may, nevertheless, help boards of directors to pick out the right kind of executive and it may, in turn, help executives to analyze themselves.

OFFICE ORGANIZATION

A good executive secretary who is asked to work without a proper staff is, to some extent at least, being wasted. He is working without the proper tools. A shoe-box type of office organization may seem to be economy, but the economy is only apparent.

If the organization is doing things in the community, it must be making contacts, accumulating information, disseminating information, and carrying on other lines of related activity. All of this means writing letters and memoranda, keeping records, filing papers, etc. The need for office equipment and organization is at once apparent.

1. Staff

The staff will depend upon the work to be done, not solely on the budget as is too often mistakenly the case. The staff may be a combination stenographer, clerk and bookkeeper, or it may be a dozen people. The need for a personnel will grow with the work, if the organization is alive. It is a great mistake to pay an executive an executive's salary to do a typist's or file clerk's work.

2. Equipment

Typewriters, files, and good office machinery save time and money. Where many letters are used, a mimeograph or multi-graph equipment may be needed. The office that piles its correspondence up on a shelf without attempting to file it or that writes its letters in long-hand may be practicing economy, but it probably is not. A going concern like a live tuberculosis association should be equipped to get the most out of its staff.

3. Business efficiency

Business men have been accustomed to think of tuberculosis associations and other social work agencies as lacking in business efficiency. There should not be any cause for this impression if tuberculosis associations give more thought to business details. Whether the budget is \$1000, \$10,000 or \$100,000, there should be a proper bookkeeping system that will show at all times just where the association stands, both in receipts and expenditures. A budget approved in advance of the year's work is essential. Books kept accurately to correspond with the budget are a necessity. The handling of money and supplies should be worked out so that there can be no loose methods and no possible room for complaint by anyone. While a tuberculosis association does not have to show a profit, it must be conscientious in accounting for the trust put in it by the contributing public. This means business efficiency.

The subject of organization naturally covers a much broader field than that discussed here. One may well say that the

degree of intensive organization of a community will determine the success of the problem. Of this we shall speak more under the discussion of programs. Here, however, it may be sufficient to point out that in considering the development of a new association the following axiomatic principle should prove helpful: An association without money is of little value, and an association with money and no program is dangerous. The only kind of association that is worth organizing is one that has money, or the possibilities of getting money, and a program.

SELECTED REFERENCES

- A TUBERCULOSIS DIRECTORY comp. by P. P. Jacobs. New York, National Association for the Study and Prevention of Tuberculosis, 1911.

Typical forms of organization of associations in the United States. p. 190-214.

ARTICLES

- MARQUETTE, B. Municipal voluntary health coördination. National Conference of Social Work. Proceedings, 49th, 1922. p. 206-210.
- NEW YORK TUBERCULOSIS ASSOCIATION. Organization chart. *In its Bulletin*, 1:8, January, 1920.

CHAPTER X

CLINIC METHODS

The tuberculosis clinic as a method in the control of tuberculosis is related historically to the much older general medical and surgical dispensaries and out-patient departments of hospitals in various parts of the world. Some of these general dispensaries date back to the seventeenth century. The first tuberculosis clinic was established by Sir Robert Phillip at Edinburgh, Scotland, in 1887, less than five years after the announcement of the discovery of the tubercle bacillus by Koch. Dr. Phillip's famous tuberculosis dispensary has served as a center from which the so-called Edinburgh anti-tuberculosis scheme has radiated. The first tuberculosis clinic in America of which there is an authentic record is that established at the New York Throat and Nose Hospital in 1894 by Dr. Edward J. Bermingham. Professor Calmette's famous dispensary at Lille, France, was established in 1900. The most significant development in this field of tuberculosis clinic work has been within the period of the National Tuberculosis Association's existence since 1904.

WHAT IS A CLINIC?

The terms "clinic" and "dispensary" are frequently used interchangeably and synonymously. Strictly speaking, as Davis and Warner point out in their book entitled "Dispensaries," the clinic is a unit of the larger dispensary organization. Rightly conceived, the dispensary embraces a series of clinics such as those for tuberculosis, general medicine, surgical, psychiatric, and venereal diseases, etc. In many instances, however, the tuberculosis clinic has sprung up independently and apart from a general dispensary. Even where this has been the case, authorities like the New York Association of Tuberculosis Clinics use the term "clinic" for the specialized institution dealing only with tuberculosis. This seems to be a fair distinction and one that will be adopted in this chapter.

A tuberculosis clinic, then, is a place where patients who have tuberculosis or who suspect that they have the disease may be examined, advised and treated with reference to their health.

FUNCTIONS OF THE TUBERCULOSIS CLINIC

Generally speaking, the tuberculosis clinic is primarily a diagnostic agent. In her handbook, "Tuberculosis Dispensary Method and Procedure," Miss F. Elisabeth Crowell considers the functions of a tuberculosis clinic in order of their importance as follows: diagnosis, treatment, home supervision hospital admission, education, and relief. Each of these topics will be taken up for further consideration.

1. Diagnosis

While there may be some difference of opinion as to the priority of the diagnostic function of a tuberculosis clinic, all will agree that this is one of the most important, if not the most important, function. The tuberculosis clinic is a center to which those who suspect that they have tuberculosis may go and receive a free or partly free examination. If it is rightly conceived, the clinic will serve as a place to which the neighborhood physician who is in doubt about a puzzling case may go and receive expert consultation, or from which there will be sent an expert consultant to confer with him in his own office or in the home of his patient. To serve as a diagnostic agent the clinic must naturally advertise itself to its constituency and must appeal not only to those who know they have tuberculosis, but to those who have suspicious symptoms. Hence, in the exercise of this diagnostic function it advertises by circulars, through newspapers, and in a great variety of ways that it is ready and willing to give examination and advice to those who wish it. In doing this it should and usually does enlist the support of the tuberculosis agencies of the community, particularly the tuberculosis association, in urging people to go to the clinic at certain hours when it is open.

In the exercise of this diagnostic function, furthermore, the clinic is gradually extending itself into the community, not waiting for patients to come to its doors, but going out after them. From it there have developed the medical consultant, the traveling clinic, the extension of the clinic into industry, the occasional clinic, and similar devices of which mention will be made later in this chapter,—all designed primarily to put into effect this diagnostic function.

2. Treatment

By treatment, as considered here, is meant not merely medicinal or specific treatment; the term treatment includes also the constant supervision and advice that the wise physician and the skilful nurse give. The clinic, in other words, becomes the center from which the physician and nurse gain entrée to the home of the patient and by means of which the family and the patient are brought into contact with the correct means for diagnosis and treatment.

Miss Crowell places medical treatment as the second function of the tuberculosis clinic in order of importance. In the earlier days of the tuberculosis clinic treatment was generally conceived as its primary function. With the gradual increase of community facilities such as hospitals and sanatoria the treatment function has become secondary to the diagnostic function. There is probably need for a revival of interest in the clinic as a center for treatment. Authorities are generally agreed at the present time that there is a very considerable percentage of patients that never can and probably never will be hospitalized. There is need, therefore, for the extension of home treatment. With the extension and standardization of home treatment the tuberculosis clinic will play an increasingly important rôle in the matter of treatment. The emphasis placed at the present time upon follow-up of cases returned from sanatoria and hospitals is also bringing to the tuberculosis clinic a new and increasingly difficult task, also in the line of treatment. The tuberculosis clinic is the best fitted community agency to serve as a center for following up returned sanatorium and hospital cases.

3. *Home supervision*

As has already been indicated, the tuberculosis clinic is more than a station to which the patient may come and receive advice and then go home possibly to apply the advice and possibly not. *Correctly conceived, it is a center of community effort.* The nurse is the connecting link between the clinic and the home. In fact, a clinic without the extension of nursing and medical facilities into the home is hardly a clinic at all. Within recent years an effort has been made by many clinics to have the homes of patients visited not only by the nurse, but by the physician as well, especially where patients are too sick to attend the clinic. The value of home supervision is not merely in that it gives the nurse a chance to follow up the individual patient who comes to the clinic and make him comfortable in his own home. It has a much greater possibility than that. The possibilities of home supervision lie in the opportunity that the nurse gets to bring to the clinic the other members of the family, particularly the children. For the clinic, the individual patient who applies for the first time is merely one unit of the larger family that must be brought into the clinic if it is going to achieve its desired goal.

Whatever the primary emphasis of the clinic, therefore, the home supervision of patients and the extension of the treatment facilities of the clinic to every member of the household is of the greatest importance.

4. *Hospital admission*

The clinic naturally serves as a clearing house from which patients are admitted to institutions adapted to their particular cases. Take for example a typical family. The father goes to the clinic because of some pamphlet that he has received in his place of work and it is discovered that he is tuberculous. The nurse calls at the home, and, after a proper contact is made, finally induces the mother and three of the children to visit the clinic. The clinic finds active tuberculosis in one of the children and a condition bordering on malnutrition in the

others. The physician prescribes sanatorium treatment for the father and the sick child. The open-air school treatment is prescribed for the other children. Through the nurse and the physician the patients are admitted to the proper institutions. Thus the clinic serves as a hospital admission bureau. A county hospital without a clinic as a feeder is very apt to be run below capacity. The reason why many hospitals fail to keep their beds occupied will be found in the inefficiency of the community clinic facilities.

5. Education

The educational function of the tuberculosis clinic is a vital one. Many who come to it get for the first time a correct conception of tuberculosis and its treatment, largely from the advice given to them by the physician and the nurse. There are many thousands of people who come to clinics for examination who are found not to be tuberculous. Even for these the educational value of the clinic must be considerable. The extension of the clinic into the home affords an opportunity to educate the whole family and to make of them missionaries of health to the community.

The clinic, furthermore, performs a valuable educational function for the entire community. From it radiate publicity and education that tell the community that tuberculosis can be cured and that certain signs and symptoms are warnings of danger. This community educational function of the clinic is an extremely important one.

6. Relief

Because of its very nature the tuberculosis clinic discovers relief problems that often escape the regular relief agencies of the community. Reverting to the example given above, it is not enough for the nurse of the clinic to place the father and breadwinner in a sanatorium and the children in a hospital or open-air school. What is to become of the mother and the remaining members of the family that are left at home? Some-

times they cannot work and even if they can there are household expenses that cannot be met from the returns of their labor. The recognized relief agencies must be put in touch with them through the nurse. Adequate support during the period when the family is broken up must be secured. Relief then becomes part of the treatment of the patient.

The New York Association for Improving the Condition of the Poor in its relief to patients follows a procedure somewhat different from that outlined here. Instead of breaking up the family by sending the breadwinner to an institution, an effort is made to treat the entire family in their home, by affording not only adequate medical and nursing care, but also adequate financial relief. This work is being done in a large apartment house, known as the Home Hospital. The results of this process have been strikingly beneficial and compare advantageously with the results achieved by other methods. Where the breadwinner must be sent to a sanatorium and one or more other members of the family are taken to institutions, it is always difficult to rehabilitate the family when the breadwinner returns, oftentimes incapacitated for full work for a time. Thus the relief problem, which frequently is discovered by the tuberculosis clinic, becomes a vital part of the whole care of the family.

Auxiliaries established in connection with large clinics in New York City and elsewhere have helped to solve the problem of relief, particularly where special care of certain members of the family is necessary. The auxiliaries are usually composed of wealthy women patrons of the clinic. Generally speaking, therefore, where there is a recognized relief agency such as an Associated Charities or some other family case-work group, the tuberculosis clinic best fulfils its function by referring the family to such an agency.

EQUIPMENT

1. Location

The location of a tuberculosis clinic will be determined not so much by the convenience of the doctor and the nurse as by

the demand of the neighborhood or community. In large cities the clinic is best located in those districts where there is most tuberculosis. In towns of moderate size, it is often desirable to locate the clinic in one of the general hospitals of the community. Other things being equal, a tuberculosis clinic which is part of the general dispensary or out-patient service of a general hospital is in a preferred location. Where this is not desirable, a vacant store or other building on the ground floor is preferable. It is well not to locate a clinic on a second or third floor unless elevator service is available. Accessibility is also a consideration which should be borne in mind. Clinics in some cities have been located where they are almost inaccessible, with the result that their usefulness has been limited.

2. Rooms

There have been clinics where a physician and a nurse with a portable scale in a poor schoolhouse room have rendered yeoman service, comparing to their advantage with that rendered in many finely equipped and especially constructed quarters elsewhere. In considering equipment one might almost paraphrase a much quoted definition of a university which pictures Mark Hopkins at one end of a log with a student on the other. The tuberculosis clinic should provide room for reception of patients, for examination under conditions of quiet and privacy, and for essential elements of sanitation and personal hygiene. This usually means a minimum of three rooms.

3. Material

A scale or scales, hot and cold running water, receptacles for disposal of infectious waste, record cabinets, chairs and desks are among the minimum physical requirements of a clinic. There will also have to be examination chairs and instruments for the examination of the throat, nose and teeth. The National Tuberculosis Association suggests the following facilities and equipment for a clinic:

- | | |
|-------------------|---------------------------------------------|
| a. Admitting room | } These rooms could be separate or combined |
| b. Waiting room | |

- c. Room for history taking: The room for history taking should be entirely separate from other rooms, so that the patient may talk freely and confidentially to the physician or nurse.
- d. Three examining rooms: One to be used for nose and throat examinations.
- e. X-ray and clinical laboratory for central clinic when not connected with a hospital.
- f. Separate record file room for central dispensary.
- g. Equipment for examining rooms:
 - Examining table
 - Sink—hot and cold water
 - Chair
 - Screens
 - Tongue depressors
 - Paper napkins
 - Receptacles—paper bags
- h. Equipment for history room.
 - Two desks or tables (one for nurse and one for physician)
 - Chairs
 - Scales
 - Filing cabinets for records
- i. Admitting and waiting room equipment:
 - Benches
 - Exhibits for health instruction
 - Literature to be distributed
 - Cabinet, containing prophylactic supplies (such as paper napkins sputum cups, etc.) to be distributed by the nurse for the home use of patients.
- j. X-ray equipment and clinical laboratory equipment.

4. Personnel

More important than the physical equipment is the personnel. A successful clinic is dependent almost entirely upon the personality of the physicians, nurses and other attendants who comprise its staff. There are peculiar qualifications of personality, training and experience that make for a good clinic physician. One might say the same with reference to a nurse. The patient who comes to the clinic for advice or examination or treatment will be attracted to or driven away from the clinic more by the people with whom he comes in contact than by the equipment of the rooms.

The number of physicians and nurses will be determined by the number of patients. It is usually recommended that there should be not more than five patients per hour assigned to one physician, particularly if two out of the five are apt to be new patients. It would be difficult to examine five new patients in an hour and do them justice. If the physician takes the history and advises the patient, in addition to giving a complete examination, from half to three-quarters of an hour must be allowed for each new case. Miss Lucinda N. Stringer, Executive Secretary of the New York Association of Tuberculosis Clinics, suggests that one nurse for each one hundred patients is sufficient. This includes the work of the nurse at the clinic and the work of the nurse at home. While this ratio might apply to a large city where the patients can be reached without a great deal of traveling, it would probably not apply to a county or a group of small towns and villages.

If the clinic is large enough, there will have to be a clerk or clerks who will do the routine work of receiving and referring patients to the proper physician or nurse, and who will also take care of records and do other clerical work.

5. Records

The tuberculosis clinic without records is almost valueless. The entire success of the institution depends upon its records. Only as it keeps them accurately and painstakingly can it sell itself to the community. Records should include charts indicating the results of medical examination, personal habits, vocational history, home conditions, past health, occupation, medication, progress, weight, temperature, pulse, respiration, laboratory tests, etc. These records should be carefully kept by the physician. Combined with the medical history should be a chart kept by the nurse recording the salient facts of the patient's economic and social background as based upon her visits to the home and her conversation with the patient. The records will also include "tickler" files to check up patients needing reexamination, and other forms such as sanatorium admission cards, etc., that may be required by local conditions.

Most tuberculosis clinics use card records. Some prefer, however, the folder of ordinary letter-file size with the records bound together or not, according to individual preference. It is difficult, if not impossible, to offer standard forms of records that will fit all situations. The National Tuberculosis Association and the National Organization for Public Health Nursing will advise on contents, but it is best as a rule to have the records printed locally, so that they will fit into other schemes for recording similar information.

CLINIC PROCEDURE

The procedure of clinics varies considerably depending upon the extent of the service, local conditions, etc. Where the clinic is well organized the procedure will embody first of all, a careful history. The history may be taken by the nurse, but is better taken by the physician. The increasing emphasis at the present time on history as one of the most fundamental necessities for diagnosis is sufficient reason for asking the physician to take the history, even though it does involve what seems to be almost unnecessary clerical work. The nurse should prepare the patient for examination and the examination itself will include the usual routine physical and diagnostic tests.

To facilitate diagnostic work, x-ray and fluoroscopic examinations must be resorted to if necessary.

A nose and throat specialist should be in attendance for diagnosis and treatment of all pathological conditions of the air passages. The services of a nose and throat specialist for three days a week and one day a week for children is recommended.

Doubtful cases should be assembled on certain days for final decision. Such service will not only greatly assist the clinic physician in making accurate diagnosis, but will also maintain the work of the dispensary physician at a certain standard. A tuberculosis specialist should be employed two days a week to act as consultant.

On all cases where history or symptoms suggest a specific infection a Wassermann should be made.

Close affiliation with a dental clinic is of extreme importance.

If there is no diagnostic clinic affiliated with the tuberculosis clinic, patients should receive a complete medical examination and should

be referred to the proper clinic for the necessary treatment. Contact cases should be examined at regular intervals, those below par as frequently as deemed necessary. All children living in a home where tuberculosis exists should be referred at once to the children's tuberculosis clinic.¹

CHILDREN'S CLINICS

Children present such a peculiar problem in relation to tuberculosis that it is well to have a separate clinic for them. Such clinics should be held preferably either after school or on Saturday mornings. The number of clinic hours for children as well as for adults will be determined by the number of patients attending. The procedure of the children's clinic will vary somewhat inasmuch as most of them are not necessarily open cases and there will be a very much larger percentage than among adults of suspicious cases. As Miss Stringer points out, at least two-thirds of the work to be carried on in a children's tuberculosis clinic is of a preventive nature.

This means not only assisting at the clinic and following up cases at the homes, but also instructing those at home in personal and home hygiene, giving special instructions to the member of the family ill with tuberculosis, impressing the parents with the importance of the correction of physical defects, bringing back into the clinic the children needing reëxaminations, taking to other clinics children needing defects corrected, placing those needing hospital, sanatorium, preventorium and day camp care, finding temporary shelter for children who cannot be cared for at home. It also means organizing and conducting special classes, cooking-classes, and boy and girl scout troops, etc.²

Where the Pirquet test is negative in children definitely exposed to tuberculosis it should be repeated at intervals of probably every six months at least. Children under two years of age will probably be tested more frequently, so also will children that present peculiar suspicious symptoms. The clinic will act with reference to such children as the agency

¹ Extract from "Plan for a City Demonstration Tuberculosis Clinic," by Lucinda N. Stringer, and Dr. M. Alice Asserson, Feb. 1922 Number of Bulletin of N. T. A.

² Extract from "Plan for a City Demonstration Tuberculosis Clinic," *ubi supra*.

for the correction of physical defects such as those of the mouth, nose, throat, posture, etc. The children's clinic will also seek to develop special facilities for babies and tuberculous mothers, and for children of pre-school age—a group for which ordinary community facilities are lacking. There will doubtless have to be coöperation with day nurseries, kindergartens, neighborhood houses and similar institutions in the development of a good children's clinic.

If a children's clinic is well planned and manned by physicians who know tuberculosis and are well versed in pediatrics, and if furthermore the nursing personnel is peculiarly sympathetic to children's problems, it will pay large dividends in prevention of tuberculosis and restoration to health of hundreds of borderline cases.

ESTABLISHING A CLINIC

Most tuberculosis clinics have grown out of the pioneer experience of tuberculosis or public health nurses. Most nurses find early in their work in a new community considerable difficulty in getting a diagnosis of the cases of tuberculosis that appear obvious to them. Inasmuch as the nurse cannot make a diagnosis herself, she must either take her patients to the office of a private physician or to some public agency. If cases found by the public health nurse are taken to the office of a private physician, or if a physician, however well intentioned, attempts to make free examinations, he is apt to incur criticism from his fellow practitioners. For those patients who can afford the cost of a medical examination the problem is easily solved by referring them to their family physicians, but for the great majority of persons who cannot and will not pay the fee for a medical examination, the best solution of the problem is the establishment of a tuberculosis clinic.

1. Selection of staff

The selection of the staff presents a difficult problem. If the coöperation of the county or local medical society can

be secured, the problem can be more easily solved. If such coöperation is difficult to secure, those interested in the establishment of the clinic must make their selection from the physicians in the community who have expressed a definite interest in tuberculosis work. It is generally considered a mistake for the nurse to attempt to select a medical staff for a clinic. Many a good clinic has been ruined in this way. The selection of the nursing staff is a somewhat simpler problem and, if there is already a tuberculosis nurse, it is usually solved at the beginning by the utilization of this nurse during the clinic periods.

2. Advertising

It is not enough merely to do as was done in one community, put up a sign with the name "Tuberculosis Dispensary" on it and expect patients to come. The tuberculosis clinic is usually a new idea in the community. It must be sold to the people who need it. This requires publicity. Newspaper articles, circulars, posters, and other kinds of publicity are necessary. It requires personal work, with families, particularly on the part of the nurse or nurses. This is especially true if the clinic is to bring to its doors not only the tuberculous patient but those other members of the family who have been exposed to the disease, particularly the children. The creation of a proper community sentiment toward the clinic in order to remove it from the realm of charity and to put it on a public health basis will go far toward making the institution a success. This is essentially an advertising and publicity problem.

3. Objections

Most objection to establishing a tuberculosis clinic is, strangely enough, on the part of the physicians. There are some physicians who consider their practice primarily as a business and view any effort toward the improvement of community health, or so-called "social medicine," as an invasion of their peculiar field of financial revenue. The soundest argument for

such objectors is that a tuberculosis clinic, if it is well run, will always increase the practice of local physicians. Universal experience has been to this effect. The tuberculosis clinic arouses interest in health. Such aroused interest in health cannot help but reflect itself in more frequent calls upon the local family physicians, which in turn, to view it from the purely economic angle, must increase business for the physicians.

THE TRAVELING AND OCCASIONAL CLINIC

The perambulating clinic is largely a development of the last five years. The Michigan survey of 1916 clearly disclosed the fact that, if expert diagnostic facilities could be brought to the people, the number of cases of tuberculosis discovered would be greatly increased. The experience in the Framingham Health and Tuberculosis Demonstration reinforced that of Michigan. These two experiences have had much to do with the development of the traveling or occasional clinic idea. The traveling clinic is merely an effort to bring the most important feature of the ordinary, stationary clinic, that is, the opportunity for diagnosis, to the patient, instead of waiting for the patient to come to the clinic.

1. Types

There are three general types of traveling clinic that have been used to advantage in this country. There is, first of all, the motorized, fully equipped clinic. This consists of a large automobile truck with covered body, housing a miniature but nevertheless properly equipped tuberculosis clinic. Some of them are so arranged that when the truck is stopped the sides can be let down and the space for dressing and examination can be considerably enlarged. The motor frequently carries a motion picture machine and generator producing its own electric power. A physician, a nurse, and usually a chauffeur comprise the staff. The clinic travels from place to place, particularly in the rural districts, wherever the roads will allow. An advance agent usually goes ahead and makes

contacts with the physicians and other interested groups, announcing that on such a date and at such an hour the clinic will be at a certain place to examine and advise with those who wish its services. The advance publicity appeals not only directly to the people, reaching everyone who wishes to attend and receive a free examination; it appeals also to the physician urging him to bring his doubtful cases for consultation and advice. This type of motorized clinic has been used with excellent advantage in Utah, Mississippi, North Carolina and a number of other states.

The second type of traveling clinic is what has been called in New York State the occasional clinic. Here the "clinic" usually consists merely of one or more physicians and a nurse or two who travel either by automobile or by other means from village to village or from one part of a large city to the other. They carry with them the simplest kind of equipment—a portable scale and such other clinic and sanitary supplies as may be necessary. The entire equipment may be carried in an ordinary trunk. The advance agent goes ahead and announces the time and place—usually a school, church, or some other central meeting place. The clinic is easily fitted up and in less than an hour is ready to receive patients. The appeal of the occasional clinics in some instances, as in New York, has been most directly to the physician. In others it has been to the general public.

The consultant service as originated at Framingham, Massachusetts, is a third type or variant of the traveling clinic idea. Here the "clinic" is embodied entirely in the person of one physician, an expert tuberculosis diagnostician, who offers his services to the medical profession at certain times and places. Where the consultant travels about from town to town, or from one part of the city to another, he designates a fixed hour and place, very often a physician's office. The appeal of the consultant is directly to other physicians. He does not attempt to examine patients unless they are referred to and usually accompanied by their own physician. He is, as his name implies, merely a diagnostic aid to the medical

profession. The consultant idea is now being widely employed in Massachusetts, New York and elsewhere, with excellent results.

2. Relative values

As to the relative values of these three types of traveling clinics, one cannot generalize too far. The motorized traveling clinic has the great advantage of being mobile. It can travel from place to place very quickly. If the roads are poor, however, it finds considerable difficulty in getting about. For states like Mississippi or New Mexico with large rural areas, the traveling, motorized clinic has proved its value, particularly if along with the clinic there are carried certain educational features such as motion pictures. The question of expense is the chief drawback to the motorized, traveling clinic. The original cost of equipment may range from \$4000 to \$10,000. The cost of maintenance, including gasoline, wear and tear of the machine, service of chauffeur, etc., is exceedingly high.

The occasional clinic has distinct advantages from the point of view of cost, but it lacks mobility. Where an ordinary touring car can be provided, this lack is made up in part. If the railroad or other service must be depended upon, the motor clinic has a distinct advantage. The occasional clinic has an advantage in that it draws upon a wider range of medical service, sending a physician from one city today, and from another city tomorrow, to a particular clinic at a designated hour. For example, in Michigan tuberculosis specialists were assigned to occasional clinics in different parts of the state, receiving for their services a nominal honorarium. Thus the organization in charge was able to use a large number of physicians.

The consultant service as a means for discovering tuberculosis, if it is rightly conducted, has probably the most advantages. In Framingham, consultant service, in the person of Dr. P. C. Bartlett, is entirely detached from private practice. This seems to be a desirable feature. The local physicians are thus assured that the consultant is in no way com-

peting with them for patients. The superintendent of a county or local tuberculosis hospital, if he is properly qualified, may serve as a consultant in his own community. Inasmuch as he is not practicing as a rule, he is generally received cordially by the physicians of the city or county. The personality of the consulting physician naturally determines to a very large extent his usefulness. After five years of work the consultant in Framingham, a town with a population of only 17,000, averages about 50 consultations a month.

The present tendency in rural districts is toward the establishment of clinic facilities of a more or less mobile character along the lines here indicated. In the cities and the larger centers of population, there is and probably always will be a need for a permanent diagnostic and treatment center—the tuberculosis clinic. In the state of Massachusetts cities of 10,000 population or over are required by law to have a tuberculosis clinic. The health center in some communities is taking the place of the specialized tuberculosis clinic, or to put it another way, is incorporating the tuberculosis clinic as one of its specialized services.

The tuberculosis executive should always consider that the clinic is primarily for the purpose of diagnosing doubtful cases. If the health center is largely for educational purposes, he should keep clearly in mind that no amount of generalized propaganda can ever take the place of this first and foremost function of the tuberculosis clinic. If a union of the tuberculosis clinic with the health center is desirable, the peculiar diagnostic function of the clinic must always be preserved and emphasized.

At the present time the average number of cases of *known* tuberculosis in most American communities as compared with the actual number is pitifully small. The first great necessity in getting at the heart of the community problem of tuberculosis is to find the cases. Any method, whether permanent clinic, traveling clinic, consultant, occasional clinic, or what not, that discovers tuberculosis is a vital necessity.

SELECTED REFERENCES

- BARDSWELL, N. D., *ed.* The Tuberculosis Clinic, by several writers. London, Bale, Sons and Danielsson, 1922. 111 p.
- CROWELL, F. E. Tuberculosis Dispensary Method and Procedure. New York, National Association for the Study and Prevention of Tuberculosis, 1916. 119 p.
- DAVIS, M. M., AND WARNER, A. R. Dispensaries, Their Management and Development. New York, Macmillan, 1918. 438 p.

ARTICLES

- ARMSTRONG, D. B. A consultation service in tuberculosis work. *Modern Medicine*, 1:633-35, November, 1919.
- BARTLETT, P. C. Consultation and medical examination work of the Framingham community health and tuberculosis demonstration. *National Tuberculosis Association. Transactions*, v. 14, p. 489-91, 1918.
- CLINIC NUMBER. *Bulletin, National Tuberculosis Association*, v. 8, February, 1922.
- DAVIS, M. M., JR. Pay clinics for tuberculosis. *National Tuberculosis Association. Transactions*, v. 12, p. 367-72, 1916.
- STRINGER, L. N. The function of the nurse in the permanent tuberculosis clinic. *National Tuberculosis Association. Transactions*, v. 18, p. 647-51, 1922.
- THE TUBERCULOSIS CLINICS OF NEW YORK CITY. *American Review of Tuberculosis*, 4:39-65, March, 1920.

CHAPTER XI

MEDICAL SERVICE

It needs no argument to prove that tuberculosis is fundamentally a medical problem. To be sure, it has distinct social and community health aspects. It is a disease of the human body, however, and as such is a problem in which the physician must be vitally interested. The tuberculosis executive who does not comprehend this basis for his work is sure to make serious mistakes.

Probably one of the severest criticisms that can be made of many tuberculosis associations is that labeled in certain medical circles as "lay domination." The control of tuberculosis requires intensive and extensive propaganda. This is essentially a layman's task. At the same time the propaganda must be based upon sound and progressive medical knowledge. To forget this fact is to make the program of the tuberculosis organization a series of pronunciamientos by lay workers without proper medical supervision and approval. Those methods by which the tuberculosis association gets the proper medical basis in theory and practice for its problem may be generally defined as medical service. This term may comprehend the creation of a distinct department with staff and other equipment, or it may mean the employment on a volunteer basis of the services of medical men who are members of the board or organization.

MEDICAL BASIS

What then, theoretically considered, is the medical basis of a tuberculosis program? This may be stated in a number of different ways; but, speaking broadly, the following fundamental principles should characterize the medical theory underlying a tuberculosis program:

1. Bacteria pathogenic to man grow chiefly within the human body. Such germs do grow outside of the human body and

especially in tissues of other animals, but, from the point of view of the tuberculosis executive, it is of the greatest importance to note that disease germs do not grow in clothing, or on floors, or on sidewalks, or on things generally, but in the body.

2. The opportunities for infection with tuberculosis are practically universal. Most authorities are agreed that by the time adult life is reached a very considerable percentage of the human race has been infected with the tubercle bacillus. There is difference of opinion as to the degree of infection. Some say that 60 or 80 per cent of the population of adult age are infected; others that 95 or even 100 per cent are infected. The percentage of infection doubtless varies according to the living conditions of the population, such as, for example, city or urban, industrial or rural, etc. For ordinary consideration of the topic, however, infection in adults may be considered as very widespread, especially among civilized peoples.

3. Such infection occurs in the first instance usually in childhood and is produced both from human and bovine sources. Most children, especially those living in urban districts, acquire a certain amount of infection in the first ten or twelve years of life.

4. Adult infection is perfectly possible. It is now generally conceded that, while childhood infection is very prevalent, it does not confer an absolute immunity against further infection in adult life. Given the proper conditions an adult can be reinfected from outside sources or by himself.

5. Continued normal resistance is the surest safeguard against breakdown with tuberculosis. Infection is usually translated into manifest tuberculosis in adult life as the result of certain groups of causes. These causes may be grouped under the headings of constitutional factors, nutritional factors and environmental factors. Authorities like Pearl, Pearson and Davenport lay particular emphasis on the effect of constitutional factors and point out that the inherited vitality and constitution of the individual have a marked,

if not an overwhelming, bearing upon his ability to resist the onslaughts of tuberculosis. Other groups of writers like McCollum, Lusk and Emerson, for example, lay great stress upon the nutritional factors, pointing out that breakdown with tuberculosis may be brought about not only by a lack of sufficient food, but also by a lack of the right kinds of food, particularly the vitamins. The most commonly accepted view holds that infection is translated into manifest tuberculosis by environmental factors, under which heading might be included both those things that affect the individual from the outside and those that have to do with his own personal habits including nutrition. Whether one or more of these three groups of factors actually cause breakdown with tuberculosis, it is perfectly sure that the maintenance of normal conditions of healthy living is the best safeguard against such breakdown.

6. The hospitalization or isolation of the dangerous focus of infection is feasible and desirable. At the International Congress against Tuberculosis in 1908 Newsholme's classical paper on the causes in the decline of the tuberculosis death rate pointed out that the hospitalization of advanced cases of tuberculosis was the most important thing to accomplish in the control of tuberculosis. Experience in the last fifteen years has clearly proved that the dangerous carrier of sputum can be and should be separated from well members of the family either at home or in an institution.

7. Anything that increases resistance of the child or adult thereby probably prevents tuberculous activation or breakdown. Conceding that any one or all of the three groups of factors mentioned above are instrumental in producing breakdown with tuberculosis, it seems perfectly logical for the tuberculosis movement to proceed upon the theory that the building of resistance by the improvement of race stock, the betterment of human nutrition, and the elimination of environmental hazards to tuberculosis is sound. This principle implies a very broad conception of a tuberculosis program.

8. Tuberculosis can be cured or arrested if early diagnosis is secured. The curability of tuberculosis and the restoration

of those afflicted with it to normal health depend chiefly upon the diagnostic agencies of the community.

FUNCTIONS OF MEDICAL SERVICE

In the light of these fundamental medical principles, the value of medical service as a distinct method in a tuberculosis program becomes more apparent. All of the other methods of the tuberculosis worker are in a very distinct measure dependent upon the medical basis upon which they are established. To furnish to the lay executive and the other lay workers in the tuberculosis movement the proper kind of practical advice, a medical service is necessary. The functions of such a medical service may be defined in general as follows:

1. To coöperate with the medical profession in general in developing a more active interest in tuberculosis problems. The indifference of many physicians to tuberculosis work has often been commented upon. To change this indifference into active support and coöperation is the first and most important function of a good medical service. No tuberculosis movement can hope to succeed without the support of the practicing physicians in the community in which it works. The county medical society, the state medical society, individual local physicians and groups of physicians must be enlisted in the support of the tuberculosis movement. They can best be secured through the medium of a good medical service.

2. On the part of the general practitioner especially there should be a more enthusiastic interest in tuberculosis. This must be brought to him through recognized channels with which he is familiar, such as medical societies, his medical journals, and other publicity and educational media that come in contact with the practitioner. The exclusion of tuberculosis patients from the wards of our general hospitals is largely responsible for the present indifference of many general practitioners to tuberculosis.

It may be desirable under some circumstances to urge certain local physicians to attend post-graduate schools for

tuberculosis, such as those at Saranac Lake or Colorado Springs. Medical study clubs on tuberculosis, such as the Koch Society of Chicago or the Trudeau Societies of Michigan or Iowa are helpful. The expenses of local physicians to tuberculosis meetings are not infrequently paid by tuberculosis associations. These are only a few ways in which the medical service can skilfully get the coöperation of the local physicians.

3. The medical service can coöperate with medical schools, where there are any, to bring to their students a modern, progressive view of tuberculosis. The exclusion of tuberculosis from general hospitals, mention of which has been made before, has worked a hardship upon the medical student of today in many such institutions. The medical service of the tuberculosis association can help these students and help the medical schools by securing for them the coöperation of the various tuberculosis activities, such as hospitals, sanatoria, open-air schools, clinics, etc., and by getting into the curriculum of the schools definite teaching on tuberculosis by physicians skilled in chest diseases.

4. The medical service should secure and develop wherever necessary and possible a diagnostic consultant service and other diagnostic agencies for the community. The clinic and other case-finding efforts are dependent upon a good medical service. Where there is no such service, the medical care of patients is apt to be of a low calibre. If the medical service includes a diagnostic consultant service, many of the difficulties of coöperation with the medical profession will be removed.

5. The medical service should seek to raise the standard of teaching and training of nurses with particular reference to tuberculosis and public health nursing. The medical service is interested in the development of higher nursing standards both in education and in practice.

6. All policies and programs of the association will be based upon medical standards developed by the medical service in some way or other, and all pronouncements of the organization should be supervised by competent medical authorities. The lay executive may properly discuss medical topics

if he does it in the name of and with the approval of a medical service. For the lay executive to discuss medical topics otherwise is dangerous.

7. Finally, the medical service will seek to develop higher standards of institutional and home care, both medical and nursing, for all tuberculosis patients in the community.

WHO IS TO DO IT?

Very few tuberculosis associations can afford to employ medical service to do the work outlined in this chapter. In most organizations this is not necessary. If in the organization of the association proper attention has been given to medical representation on the board and executive committee, or on special committees appointed for the purpose, the medical service can be done by volunteer representatives. Where the association is large enough, however, a medical member of the staff is desirable on a full or part-time basis, not necessarily as an executive, but possibly as a clinician and advisor, and as a mouthpiece of the medical representation of the board and the medical service in general.

The definition of medical service as given in this chapter may seem to be an illusive one. It embraces activities that are not easy of definition. Nevertheless, it must be perfectly clear that in dealing with a medical problem like tuberculosis the lay organization representative can walk safely only when he is guided by sound medical advice.

SELECTED REFERENCES

- PALMER, G. T. Tuberculosis—A Medical Speciality Through Popular Demand. Springfield, Illinois Tuberculosis Association, 1919. 6 p. (Monograph no. 1.)
Reprint from Illinois Medical Journal, February, 1919.

ARTICLES

- KRAUSE, A. K. Undergraduate instruction in tuberculosis. National Tuberculosis Association. Transactions, v. 13, p. 239-48, 1917.
POTTENGER, F. M. Medicine's duty towards the tuberculous patient. New York Medical Journal, 115:14-18, January 4, 1922.

CHAPTER XII

NURSING METHODS

Many of the pioneer activities in specialized public health nursing were carried on by tuberculosis nurses. The entire public health nursing campaign owes a great debt to Osler, Biggs and others who twenty or twenty-five years ago began to teach the significance of public health nursing as contrasted with bedside nursing.

As the tuberculosis movement has developed, local and state associations have been compelled to become nursing agencies, many of them on a large scale. Of the more than ten thousand public health nurses scattered throughout the country it is probably safe to estimate that at least one-third are doing specialized tuberculosis nursing, while a very large percentage of the remaining two-thirds are giving some attention to tuberculosis patients. In hundreds of communities the nurse has been the entering wedge to a full-fledged program for the control of tuberculosis. It is important, therefore, that the tuberculosis executive in selling health to a community should know something, at least, of nursing problems. It can hardly be expected, nor is it desirable, that the lay executive should be as conversant with nursing technique as is the well trained nurse. The aim of this chapter, then, will be to present some of these problems in brief outline, referring the reader for more extensive study to the references given in the bibliography, and to the personal guidance of good public health nurses.

LAYMAN AND NURSE

At the very beginning the lay executive should appreciate the distinction in professional standards between himself and the nurse. Nursing, and more particularly public health nursing, is a well developed profession. As a rule nurses are extremely jealous of their professional standards. Their

code of ethics means more to them than it does to the average layman.

The lay social worker is developing a certain amount of professional consciousness, but he is still far from having attained that degree of professional spirit that is manifested among nurses. Failure to appreciate these considerations has, in many instances, led to a serious disruption of tuberculosis work.

TRAINING

The training of a tuberculosis or public health nurse is receiving increasing stress on the part of nurses themselves. It is less than ten years ago that the first specialized training course for public health nurses was established. To be a good tuberculosis or public health nurse, a young woman must first of all have a basic course in a recognized, well established training school. Most nurses in the public health field have, after their hospital course, secured experience either in institutions or in private work. Such experience is highly desirable. A specialized course of training in some school or course for public health nurses is a necessity. It is one thing to be able to administer with proper technique and professional skill the necessary care at the bedside of an acutely sick patient. It is a radically different thing to be able to go into a home where there is a patient sick with tuberculosis and to apply there, not only the necessary treatment that may be required, but all of those preventive measures that are necessary. In commenting on this matter of preparing nurses for tuberculosis work in the public health field, Miss Mary E. Marshall, former secretary for nursing of the National Tuberculosis Association says:¹

It is becoming generally recognized in this country that good public health nursing whether considered from the generalized or from any of the specialized forms of service resolves itself at the point of application, namely, the patient, into a family welfare job. From the point

¹ Correspondence in files of National Tuberculosis Association, January 15, 1922.

of view of the control of tuberculosis especially, care of the patient must include the supervision and promotion to the highest possible degree of the health of all of his close associates, and this program frequently calls for the practice of several specialized kinds of service in the same family at the same time.

Every nurse caring for tuberculosis patients finds that her work is complicated by the economic and social problems in the families of these patients, and, therefore, I believe that every nurse who undertakes to do tuberculosis work in the public health field should have as a foundation a good working knowledge of the general principles of public health nursing and social service which should include the fundamentals of prenatal, infant and child hygiene, nutrition, budget planning and community organization, as well as the technique of bedside nursing in the homes of the poor and the well-to-do. To this should be added a thorough knowledge of tuberculosis in its social as well as its medical aspects. Special emphasis should be given to (a) the prevention of tuberculous infection by safeguarding the milk supply and the enforcement of anti-spitting laws; (b) the prevention of tuberculous disease through promotion of health by such means as the Modern Health Crusade, nutrition classes, better housing laws, reasonable working hours, elimination of industrial hazards, provision for healthful recreation, etc; (c) the reduction of the tuberculosis death rate through the detection of cases in the early stages, and getting the patients under proper treatment in time to secure an arrest of the disease and the return of the patient to economic independence by way of industrial rehabilitation when necessary.

The establishment of the fact of a large percent of childhood infection with the tubercle bacillus and its probable connection with the amount of actual disease in later life makes very clear the need that every public health nurse should be able to recognize the symptoms of this disease in its very early stages and be thoroughly aware of what responsibility is hers in the matter.

Some of the special problems of the tuberculosis nurse may be illustrated by imagining a family with a tuberculous mother and three children. The nurse must make the patient comfortable and provide safeguards to prevent infection of the children. It may seem necessary to send the mother to a sanatorium. The nurse must secure a physical examination of the children and probably of the husband. She may have to procure material relief for the family. The case must be reported in detail to the health authorities. The family as a whole must be taught how to live so that the danger of tuber-

culosis will be minimized. These are a few of the problems that the tuberculosis nurse encounters, and their solution does not come through her ordinary course of training, but through specialized training and experience.

DUTIES

1. In the clinic

If there is a tuberculosis clinic the nurse's duty is to serve as the right hand of the physician in charge. In the majority of clinics the nurse and the doctor make up the entire staff. She must be in attendance on the patients at time of examination, she must usually keep the records, she must call the physician's attention to any peculiar family circumstances that she may know about, she usually takes the history and receives her instructions as to the further care of the patient from the physician. She is not the physician's servant; she is his helper. As Miss Crowell says, "Coöperation must be the keynote of all her endeavors."

2. In the home

As has already been illustrated, the nurse's duties in the home are not only at the bedside of the patient, but in a much wider field. Care of the acutely sick person is her first duty. Such care must be based upon a conception of the careful patient that will make danger of infection to the well members of the family a relatively negligible consideration. It is not the duty of the tuberculosis nurse to do continued bedside care, but to teach the family to do it, or to see that it gets done. She must find out if any of the well members of the family are infected and, if so, must take measures to see that institutional or other care is provided. The premises may need cleaning up. It may be a case of soap and water and hard manual labor. It may be a case for the health authorities. In general, the tuberculosis nurse in the home is a friend of the family as well as a nurse to the patient. If the sick person is sent to an institution, she is the go-between of the patient and the home.

3. In the community

The nurse's duty is not limited to the clinic and the patient. She has a wider community responsibility. She may be required to make a survey. She is usually called upon to speak before various groups. In some communities she must be the school nurse as well as the general community nurse. She must know the community facilities that have to deal with the tuberculosis and health problems, both private and public. She must know how to deal with other nurses, with health officers, and how to coöperate with all of those groups that can further her particular activities.

4. With the physician

"If she (the nurse) is going to coöperate with the private physician," says Miss Crowell, "she must know him personally and convince him of her trustworthiness. Her success or failure may be decided largely by the attitude of the private practitioners in a community. She will have to tread most carefully to avoid pitfalls of professional jealousy on the one side without neglecting opportunities for service on the other."

GENERALIZED VERSUS SPECIALIZED NURSING

For several years there has been a decided difference of opinion among nurses on what is known as the question of generalized as opposed to specialized nursing in tuberculosis. The adherents of the specialized nursing plan have generally held for tuberculosis nurses devoting all of their time to tuberculosis patients. The adherents of generalized nursing have held that the public health nurse should cover a district and treat tuberculosis patients as one group of several types of patients with whom she comes in contact. There is much to be said on both sides of the question, which at the present moment seems to be nearer solution than it has been at any time within the last six or seven years.

Whether one is considering an urban or a rural district, the multiplication of specialized nurses dealing with such

problems as tuberculosis, school hygiene, industrial hygiene, social or mental hygiene and, in addition to these, representatives of relief agencies, sounds a note of warning to say the least. How long the average family can endure a succession of specialized representatives, each appealing for educational and moral support of her speciality, without being demoralized is a question that almost answers itself. It is this situation that has brought about the demand for a different type of service known as the generalized or district type.

One of the best summaries of the arguments for and against a generalized nursing plan has been made by Miss Mary E. Marshall in the following paragraphs:²

Some of the arguments in favor of the generalized program are: (a) One nurse in a small district can give more actual nursing service to a larger number of patients than several specialized nurses covering a larger territory. (b) Avoidance of possible confusion and friction resulting from visits of different nurses to the same family. (c) A saving of travel time as well as car fare. (d) Each nurse knows her small district thoroughly in all its different aspects and should therefore be able to give a service more nearly adequate to the needs of the people.

The main rocks upon which this program might founder are: (a) The difficulty of securing a sufficient number of nurses so that each nursing district can be made small enough for one nurse to handle all the work in a satisfactory manner. Where the districts are too large the educational and preventive work is apt to be neglected because of the paramount necessity of caring for the sick patients who must have actual bedside care. (b) The necessity that each nurse shall have had such training and experience that she is qualified to handle the chief forms of specialized nursing, such as tuberculosis, child welfare and prenatal work, with a special reference to their preventive aspect. (c) The necessity of providing in some way that each special line of work shall not be sacrificed in the general program. There is a very definite danger that the nurse with a generalized program will become too much absorbed in some one particular phase of it to the neglect of other equally important needs of the public health. One way, and perhaps the only safe way, to guard against this is to maintain a sufficient number of specialized supervising nurses who will keep in close touch with the work of all the nurses on the general staff and through a

² "The Coördination of Nursing Service in Urban Communities," The Public Health Nurse, August, 1920.

constant study of the nurses' records and the death and morbidity rates of the city or town keep informed as to the amount of attention required for each special line of work.

The arguments in favor of the specialized program are mainly as follows: (a) A nurse devoting herself to one particular disease or class of diseases inevitably becomes much better informed about that disease and its treatment, the methods of nursing care that bring the best and quickest results, and also the most effective means of prevention. A nurse charged with the care of all public health nursing needs that arise in her district cannot keep equally well informed about the progress made in the care and treatment of each special kind of disease unless some provision is made for hours of study and attendance at the conferences and conventions where the various specialties are discussed. (b) It is much easier to arouse and hold public interest and support in the care and prevention of a special health hazard than in a program of general health promotion.

Commenting upon this problem from a somewhat different angle Miss Crowell remarks,

The tuberculosis nurse has been the target for a goodly amount of criticism during the past few years. A product of the modern demand for specialization, she entered a new field of work with no special preparation of her own and no experience of others to guide her. Nurses have criticized her because she did little or no bedside nursing. Social workers have carped at her because she either failed to see the social implications of tuberculosis or saw them distorted through the lens of her medical interest. A pessimistic public, both professional and lay, have cavilled because she did not pile up brilliant results, and finally, even her patients themselves have rounded upon her because she did not come "bearing gifts" but offered them only precept and advice. Some of her difficulties are inherent in the situation itself and will disappear only when economists have either solved the problem of a fair living wage and a decent standard of living for all or else admitted the necessity of society's permanently subsidizing an irreducible minimum of the socially unfit. Other difficulties might disappear if the same effort that has been made to standardize medical practice in the diagnosis and treatment of tuberculosis should also be applied to the standardization of what is commonly known as tuberculosis nursing.¹

COÖRDINATION

Related to the problem of generalized and specialized service is one of coördination. The last ten years have seen an

¹ Tuberculosis Dispensary Method and Procedure, p. 67.

increasing number of agencies doing public health nursing. The Red Cross, the child welfare associations, a rapidly increasing number of public schools, the social hygiene and mental hygiene groups, large industrial corporations, city, state and county departments—these are but a few of the newer agencies that have come into the field with public health nurses, specialized or general.

The need for coördination of nursing activity, particularly in the cities of moderate size and in the rural districts, is apparent when one catalogues the list of agencies doing nursing work. In the first place there is a woeful lack of nurses. Why then should there be any overlapping or duplicating of function? In the second place, there is a waste of effort, time and money in lack of coördinated service. Agreements between various agencies such as the national and state tuberculosis associations, the Red Cross and state boards of health have helped to some extent. Probably what is needed most is local coördinated effort which will come more quickly when each specialized group sees the problem as a whole and not alone its particular field.

THE RURAL NURSE

The most distinctive development in the last five or six years in the public health nursing field is the increase in the number of nurses in rural and agricultural communities. In certain states like South Dakota less than ten years ago there was not a single public health nurse of any kind, while today dozens of such nurses are working in various parts of the state. The rural nurse must generally be a much better trained person than the urban nurse. She must have more resourcefulness; she must have a wider knowledge of the facilities of the local community and the state and nation; she must have a broader grasp of the problem. In many rural districts the nurse is the only representative of social work in the entire territory. She must be nurse, executive secretary, relief worker, health inspector, sometimes police officer, and not infrequently school inspector, and home demonstrator to the

community. She is a bundle of social agencies all bound up in one person. The rural districts are demanding more nursing service but require the finest grade of personnel.

Many leaders in tuberculosis work have advanced the thought that the tuberculosis nurse is the most valuable single agency in the entire machinery of the tuberculosis campaign. As a method for arousing public opinion, for finding cases, for bringing relief and assistance to individual families, and for raising the general standard of health in the community, the nurse stands in a unique place.

SELECTED REFERENCES

- GARDNER, M. S. *Public Health Nursing*. New York, Macmillan, 1920. 372 p.
- LAMOTTE, E. N. *The Tuberculosis Nurse*. New York, Putnam, 1915. 292 p.

ARTICLES

- FOLEY, E. L. Home instruction by the tuberculosis nurse. *Public Health Nurse*, 10:77-86, September, 1918.
- JACOBS, P. P. A survey nurse and a nurse's survey for a small community. *Journal of the Outdoor Life*, 16:169-73, 1919.
- OLMSTED, K. M. Tuberculosis nursing. *International Journal of Public Health*, 2:322-27, May/June, 1921.
- POWELL, L. M. Education in tuberculosis for student nurses. *American Journal of Nursing*, 22:98-107, November, 1921.
- Includes minimum standards for instruction recommended by the National League of Nursing Education.
- VAN ZILE, MARY. Preparation of the public health nurse for tuberculosis nursing. *National Tuberculosis Association. Transactions*, v. 15, p. 452-53, 1919.
- WIER, M. G. Problems in tuberculosis work. *Public Health Nurse*, 12:111-15, February, 1920.

CHAPTER XIII

INDUSTRIAL WORK

In any average American community there is an industrial problem of tuberculosis. Out of every hundred working men and women two have tuberculosis in some form or other. One death out of every six among working men and women is caused by tuberculosis. The size of the problem is stated concisely in these figures.

That this problem is one of most immediate concern to employer and employee as well as to the community as a whole would appear to be almost self-evident. It is a problem not of health alone; it is a problem of production and as such is of the greatest economic importance. The only type of worker who can produce to one hundred per cent efficiency is the healthy normal man or woman.

IMPLICATIONS OF THE PROBLEM

The problem of tuberculosis in industry involves immediately in its solution the following considerations:

1. Finding the cases
2. Preventing the spread of infection and improving factory hygiene
3. Care of the cases
4. After-care of arrested cases
5. Medical service
6. General education

In this chapter each one of these considerations is treated in some detail.

FINDING THE CASES

About 40 per cent of the population of the United States are employed in gainful occupations. Most of them work in small shops, factories and stores. If the workers of the country

were concentrated in a limited number of large industries, it would be comparatively easy to find the industrial incidence of tuberculosis. With the large number of small industries scattered in village, hamlet and city; with all kinds of standards of operation good, bad and indifferent; with every conceivable degree of coöperation or lack of coöperation between employer and employe; with large vested capital in some and relative small capital in others; with seasonal and other conditions intervening in many trades—with these and other conditions in mind, the problem of discovery of the 2 per cent tuberculous in industry and of putting them under proper care becomes one of tremendous magnitude.

In order to find these cases the following four essentials are necessary:

1. Education

First of all there should be an aroused consciousness of the need. In the average small factory, shop or store there is the utmost indifference to the problem of tuberculosis and, in fact, to the problem of health in general. The tuberculosis executive usually must convince each industry of the need for finding tuberculosis. Most of the large industries of the United States are now aware of the health problems of their employes, but even among some of these concerns there is need of education to show the kind of health work to be undertaken. More important, however, than the education of the employer is the education of the rank and file of the men. No plan of industrial medicine can get good results unless it is developed coöperatively by employers and employes.

2. Medical facilities

Medical facilities must be provided. These include physician and nurse and the means for working properly, either in a clinic within the plant or in some other way.

3. Medical examination

Given an aroused consciousness of employers and employes and the medical facilities, the next step is the installation of a system of medical examination of employes. This comprehends the medical examination of all new employes on admission and the periodic medical examination of all employes at stated intervals during their term of service. In some plants the latter is compulsory; in others it is optional.

4. Continuity of work

To make medical examination a success the worker must be given assurance of his job. Too often in the past, industries have used medical examinations as a means for weeding out men who have served their time and who have broken down as a result of certain peculiar hazards of the industry itself, or who have become "undesirable" to the employer for some other reason. Only by assuring the worker of a square deal, if tuberculosis or any other disease is found, can medical examination be made a success.

FACTORY HYGIENE

The next consideration in solving the problem of tuberculosis in industry is factory hygiene. This includes not only the physical plant itself, but the conditions of work, hours, wages, and general supervision of workers. The physical equipment of a plant should insure proper light and ventilation for all workers. Direct outside sunlight and outdoor air are best. It should also include the installation of such devices as will get rid of irritating dust and fumes. The presence of mineral and vegetable fibre dusts in certain industries presents a peculiar hazard of tuberculosis to the worker. The plant should be so constructed and equipped as to reduce such hazards to a minimum. Again, the arrangement and construction of the plant should minimize fatigue with its consequent poisons and its danger of lowering physical resistance.

The working schedules and working hours should be so regulated that a proper amount of time is given for recreation and rest. The wages should be sufficiently adequate to insure comfort, not merely the necessities of life.

Any industry that will give consideration to these matters will go a long way toward preventing tuberculosis among its workers, and will undoubtedly save the cost of any investment made for this purpose in a reasonable period of time.

CARE OF CASES

The physical examination of employes and the other facilities for finding cases imply that the cases discovered will be given proper medical care. The care of cases of tuberculosis from the point of view of the employer and employe involves the following considerations:

1. Financial

There must first be some sort of financial provision made for the working man and for his family. Without such provision any case-finding program in an industry is apt to be abortive. Such financial provision may be supplied for the sick man and his family in several different ways. In certain industries the employers are accustomed to pay for the care of their men while they are sick. There still lingers in modern industry too much of the mediaeval notion that the employer is responsible for the relief of his employe. The average American self-respecting working man resents being patronized. The danger of a relief system that is supported solely by the employer or the corporation itself lies in the fact that the workers may resent it, and also in the fact that too often the relief may be partial and preferential.

Another means of providing relief, and one that seems more desirable, is by a joint fund. Employes benefit funds, for example, which will be found in all large industries, are valuable in this respect. In some communities, particularly in Connecticut, the smaller industries have pooled their interests with

some of the larger industries into what is called a Tuberculosis Free Bed Fund which, in part at least, insures against tuberculosis. The fund is maintained by contributions from the employes and employers, although under some circumstances the general public is also allowed to contribute. In some industries the financial support comes entirely from the workers. The International Ladies Garment Workers Union, with headquarters in New York, carries the entire burden of its tuberculosis relief.

A few of the fraternal orders make provision for tuberculosis relief. Among these are the Modern Woodmen of America, the Workmen's Circle, and the Brotherhood of Railway Engineers and Firemen. As a general rule it is best not to ask the community as a whole to share the relief burden of a particular industry or group of industries. Industry should be able to bear its own burden of tuberculosis. That it can bear it, has been amply demonstrated in many parts of the United States.

2. Sanatorium or home care

In addition to financial provision, proper care of industrial tuberculosis implies that institutional facilities will be available or that the patient will be cared for at home. This phase of the problem has been met in a variety of ways. In some communities the workers are cared for in state or county institutions, the support being paid out of such funds as are available; in others private or semi-private institutions are subsidized or paid for the care of workers. The Metropolitan Life Insurance Company has its own sanatorium at Mount McGregor in New York State. The New York Telephone Company supports a number of its tuberculous women employes at Stony Wold Sanatorium in the Adirondacks. Sears Roebuck and Company have several of their tuberculous employes at the Edward Sanatorium, Naperville, Ill. The Standard Oil Company has recently built an institution in conjunction with the Colfax School for the Tuberculous at Colfax, California. A number of industries in Chicago and the middle west support a sanatorium at Valmora, New Mexico. These are a few examples

of what is being done. A very considerable number of tuberculous patients are also cared for in their homes at the expense of the various funds.

3. Home supervision

Whether the patient be taken care of at home or in an institution, proper care of the case requires a certain amount of home supervision, preferably by a nurse. If the patient is at a sanatorium, the nurse is the connecting link between the patient and his family. It is her duty to prepare the home for the return of the patient and to see to it that the family is properly provided for while the breadwinner is taking the cure. If the patient is at home, her responsibility extends beyond him to the family. It is the nurse's duty also to report to the workers and employer how their fellow-worker is getting along.

AFTER-CARE OF ARRESTED CASES

Much has been learned in recent years with regard to the follow-up of sanatorium cases. Because of inadequate after-care the work of some institutions in this country and abroad has been to a large extent nullified. To the worker returning after a course of sanatorium or home treatment, the after-care is of the most vital significance. He may be able to return to the particular work in which he was engaged when he broke down and he may not. He may have to have special vocational training that will fit him for some other process in the industry, or he may have to be readjusted to a new job. In any case he requires medical oversight as well as vocational guidance. Even the thoroughly arrested case of tuberculosis must adjust his life to his strength if he is to succeed.

Special workshops, like the Altro Factory or the Reco Shop of New York meet part of this problem of the arrested tuberculous worker, but only a part of it. The former shop, operated by the Committee for the Care of the Jewish Tuberculous manufactures clothing of various kinds, especially hospital garments. Its workers are recruited largely from the "gradu-

ates" of nearby Jewish tuberculosis sanatoria. The shop is self-supporting. The Reco Shop, operated by the New York Tuberculosis Association, has been employing ex-service men especially. It makes certain grades of jewelry and does watch-repairing, cabinet work, etc.

The industries themselves must, however, absorb most of the discharged tuberculosis cases that originate in them. Much study is needed to ascertain what processes of certain industries are best adapted to certain types of cases and how best such cases can be trained for work in these preferred processes.

MEDICAL SERVICE

Every industrial concern should have a certain amount of medical and nursing service available. There are probably very few industries in this country that do not present some sort of peculiar health hazard with reference to tuberculosis. Such hazards require constant medical supervision of the workers, particularly for the following purposes:

1. Medical examination

Many a valuable and skilled worker can be saved to industry, with relatively little expense, by sound medical supervision and advice given in time. Medical examination is effective also at the time of application in properly adjusting employees to industry.

2. Correction of defects

Hundreds of minor defects will be found in groups of workmen, such as defective teeth, enlarged tonsils, bad eyesight, etc. These can readily be corrected with little loss of time to the employe or employer if they are found in time. After correction the efficiency of the workers, in many cases, will be increased several-fold. If left unattended and unnoticed, these defects will often cost the employer large sums of money in decreased production.

3. First aid

A medical service is also valuable for first aid in case of accident and sudden illness.

4. Factory sanitation

A medical service will see to it that proper ventilation and light are available in all working parts of the factory and that the hazards of dust and fumes are reduced to the minimum. The working processes will be studied for the purpose of seeing that the posture and other conditions of various industrial operations are such as to reduce fatigue to a minimum.

5. Securing medical service

Not every industry will be able to secure full time medical service of its own. The smaller plants with less than one thousand employes are usually handicapped in this respect. A progressive tuberculosis executive can render a distinct service by getting several industries to pool their interests and thus to provide a joint nursing and medical staff.

EDUCATION

The control of tuberculosis in any industry involves finally a well arranged educational program with a view to instructing every worker in his individual problem and in the problem of the factory as a whole. The education should deal with the nature and prevention of tuberculosis. It should point out any particular hazards of the industry in question and emphasize just how these hazards can be avoided. The individual should be urged to have periodic medical examination if such examinations are not compulsory. He should be urged also to consult the medical service in case of any prolonged cold or other debilitating sickness. He should be told how to build up his health by proper exercise, the right kind of diet, recreation that will counteract the peculiar fatigue of the industry, and a sufficient amount of rest.

As to the means of education, usually the tuberculosis societies should be ready to furnish material, lectures, pamphlets, cards in pay envelopes, posters, motion pictures, exhibits, etc. These are but a few of the ways in which an educational campaign can be carried on in the industry. The National Safety Council (Chicago) and many of the national health agencies will furnish helpful material for this purpose, but the best material is that made especially for the industry itself.

It should be noted here that a general campaign of education in the community is not to be confused with a particular campaign of education within a given factory or shop. The former is the broad, extensive campaign; the latter is the more intensive educational application. For example, an educational campaign in a shoe factory will deal with the peculiar relations of shoemaking to health and tuberculosis. An educational campaign in a steel plant will discuss an entirely different set of relations. An educational campaign in the community at large will not deal with either of these particular conditions. All are necessary and each one will supplement the message of the other.

In conclusion, it is well to note that the proper control of tuberculosis in industry and in the schools solves a very large part of a community problem. More than half of the population will be found either in the workshop or in the school. If the case-finding machinery and the agencies for supervision, care, and education are diligently at work in the factory, store, shop, and school, the community as a whole is relieved of a very large percentage of its burden in the control of tuberculosis.

SELECTED REFERENCES

- FRANKEL, L. K., AND FLEISHER, A. *The Human Factor in Industry*. New York, Macmillan, 1920. 366 p.
- HOFFMAN, F. L. *Mortality from Respiratory Diseases in Dusty Trades*. Washington, Government Printing Office, 1918. 458 p. (U. S. Bureau of Labor Statistics. Bulletin, Industrial Accidents and Hygiene, no. 17. Whole no. 231.)

- HOFFMAN, F. L. Problem of Dust Phthisis in the Granite-Stone Industry. Washington, Government Printing Office, 1922. 178 p. (U. S. Bureau of Labor Statistics, Bulletin no. 293.)
- KOBER, G. M., AND HANSON, U. C., *eds.* Diseases of Occupation and Vocational Hygiene. Philadelphia, Blakiston, 1916. 918 p.
- MOCK, H. E. Industrial Medicine and Surgery. Philadelphia, Saunders, 1919. 846 p.
- WORKINGMEN'S ORGANIZATIONS IN LOCAL ANTI-TUBERCULOSIS CAMPAIGNS. New York, National Association for the Study and Prevention of Tuberculosis, 1916. 64 p. (Pamphlet no. 105.)

ARTICLES

- DUBLIN, L. I. Mortality from tuberculosis among wage earners, 1911 to 1916. *Journal Outdoor Life*, 15:257-67, 278-79, September, 1918.
- FRANKEL, L. K. Industrial nursing as a means of fighting tuberculosis. National Tuberculosis Association. *Transactions*, v. 17, p. 525-30, 1921.
- INDUSTRIAL NUMBER. *Bulletin*, National Tuberculosis Association, v. 8, January, 1922.
- MOCK, H. E., AND ELLIS, J. D. The problems of the tuberculous employee in industry. *National Safety News*, 4:17-19, November, 1921.
- MYERS, HARRY. An interchange of physical examinations in industry. *Journal of Industrial Hygiene*, 3:135-36, August, 1921.
- ROBERTSON, J. A. The medical department proves its value. *Nation's Health*, 3:509-10, September 15, 1921.
- SCHERESCHEWSKY, J. W. A plan for education in industrial hygiene and the avoidance of occupational complaints. *American Journal of Public Health*, 6:1031-38, October, 1916.

CHAPTER XIV

OPEN-AIR SCHOOLS AND PREVENTORIA

The first open-air school in the United States was established in Providence, Rhode Island, in 1908 and followed somewhat along the lines of the successful outdoor schools at Charlottenburg on the outskirts of Berlin. The open-air school as originally conceived was an adjunct of sanatorium treatment designed particularly for tuberculous children. Within a few years, however, the idea implied in the very nature of the school was seized upon and utilized in a broader way. The tuberculous child is not primarily a subject for school consideration at all. He is an institutional, hospital or sanatorium case. His educational needs are secondary to his hospital needs. The open-air school as it is now widely used in the United States is in every sense a school, but a specialized one.

KINDS OF OPEN-AIR SCHOOLS

Out of the work of the open-air schools in Providence, Pittsburgh, New York and Chicago there have gradually developed schools and classes for three types of children. The first is for tuberculous children. At the present time most of these schools are in connection with children's buildings as parts of tuberculosis sanatoria. There are now only a few detached open-air schools for tuberculous children in the United States.

The second and largest group of open-air schools is for anemic, malnourished and so-called "predisposed" or "pre-tuberculous" children. Strictly speaking, there is no such thing as a predisposed or pre-tuberculous child. What is implied here is a group of children most of whom have been exposed to tuberculosis and many of whom will react positively to a Pirquet test, but who are not openly tuberculous. The open-air school has also been found especially helpful for children with arrested

tuberculosis, pulmonary or glandular, and for those who show a frequent tendency to colds and bronchitis.

The third group is for normal children. There is an increasing number of open-window rooms and even special open-air schools for all types of children. The fresh air idea is permeating gradually through the entire school building.

THE PREVENTORIUM

Out of the experience with open-air schools has developed during the last few years the preventorium idea. The preventorium, strictly speaking, is a residential open-air school. Here the children are taken for limited periods and kept day and night under medical and teaching supervision, carrying on their schooling and receiving the benefit of such specialized care as the institution provides. The preventorium is usually conceived as peculiarly for children who have been exposed to tuberculosis, that is, children coming from homes where one or more members of the family have the disease. The children themselves are not generally open cases. The preventorium is also used for children of pre-school age. Out of the preventorium idea and along with it there have grown the summer camp and summer preventorium. Most of the latter are adjuncts to open-air schools, taking children who have been in open-air schools in an endeavor to continue and support the work of the schools during the summer months.

CONSTRUCTION OF OPEN-AIR SCHOOLS

From the point of view of construction, open-air schools and fresh air classes may be grouped under the following heads:

1. Special buildings

There are a few specially constructed open-air schools such as those in St. Louis, Detroit, Portland, Oregon, Rochester, and Cleveland, for example. In all of these an effort has been made to incorporate the essentials of the open-air pavilion type of construction, as seen in the best sanatoria, together with the

most approved type of classroom construction. Some of them are heated, as for example in St. Louis. In this connection it should be noted that open-air schools are now being successfully operated as far north as Montreal and Winnipeg, and northern North Dakota, often in weather far below zero and without discomfort to the children or the teacher.

2. Open-air classes

This type of construction is usually an adjunct to an existing school building, usually on the roof, but sometimes in the yard. It is most often a relatively inexpensive type of construction, in some cases too cheap and flimsy. It is designed, as in the case of the first type, to give a maximum amount of fresh air.

3. Open-window rooms

A more recent development in open-air construction is along the line of the open-window room. This is a room equipped with special windows, usually on ratchets or pivots so constructed that practically the entire sash can be opened, if necessary, to admit the air. The room selected should be a corner room and in the cities should preferably be on the third floor. Such rooms may be provided in existing school buildings at relatively small expense, or, as is now being done in many cities, may be equipped when new buildings are constructed. The city codes of several of the large cities of the country now make provision for at least one open-window room in every school that is being built. This type of room may be used either for physically sub-standard or normal children.

EQUIPMENT

In addition to the essential school room equipment required in any well equipped classroom, an open-air school or open-window room, except possibly those for normal children, requires the following types of equipment:

1. Movable desks

It is better to have desks that can be shifted, unless two rooms are available, one for the classroom and another for a retiring or rest room.

2. Cots

Cots should be provided for the rest period of the children. The ordinary inexpensive cot, without much sag furnishes about the best type of equipment for this purpose.

3. Clothing

In climates where the weather is cold or inclement some sort of special clothing for sleeping and sitting in the open air, such as sitting-out bags, parkas, eskimo suits, felt boots, woolen mittens and stockings, hoods and similar equipment may be required. In some schools a woolen sweater or blanket and light woolen mittens are provided. In others the Kenwood sitting-out bag or Eskimo suits are preferred. The latter have the advantage of giving the children greater freedom of movement. The question of expense will not infrequently determine the equipment provided. Most schools furnish the clothing, but in a few the children provide their own.

4. Scales

The open-air schoolroom should always have scales. The weight of the children is of great significance and should be watched carefully. Scales need not be expensive, but should be accurate and should provide a device for measuring height.

5. Bathing facilities

Unless the school has bathing facilities for all children, some provisions for washing should be available for these special pupils. A bath is part of the general routine of the school.

6. Other equipment

Other equipment may include devices for cooking meals if these are supplied, or for heating soapstones if used, and such other specialized equipment as the group of children or the inclination of the teacher may require.

SELECTION OF CHILDREN

1. For open-air schools

For open-air schools where tuberculous children are taken the selection will preferably be made by the physician, frequently through the clinic. In some instances the open-air school is a course preparatory to entrance in a sanatorium.

2. For the preventoria

The group of children for preventoria, as has already been mentioned, is a highly specialized group. The children that have been exposed and are usually known to be infected with tuberculosis are given preventorium treatment in order that their resistance may be built up during the critical time when breakdown with tuberculosis might result. These children are usually selected at the clinic or in the course of school medical examination.

3. For summer camps

For summer camps the group of children to be selected should usually be taken from the open-air school or fresh air classes, special consideration being given to those children whose normal environment would tend to break down their resistance during the summer months.

4. For fresh air classes

The anemic and malnourished children are usually chosen by the teacher, the school nurse and the school physician. Given a careful medical school examination, the children for a fresh air class will readily be secured and in most cases more will be found than can be accommodated.

5. For open-window rooms

For normal children the procedure usually requires special permits from the parents. Most parents are still afraid of fresh air for their children and will not allow little Johnny or Mary to sit in a school room with the windows wide open when the weather is so cold that the child must be bundled up in his outside wraps. In the larger schools, if a careful canvass is made, a sufficient number of children can always be secured for an open-window room. Often, if two or three children are secured from proper families, they will set an example that will carry along the rest of the room.

TEACHERS

The selection of teachers for open-air schools and fresh air classes requires particular care. Most of these classes are ungraded. This in itself calls for a type of teacher that is not often available, particularly in the city schools. Some teachers object to the outdoor life, but in most instances after they have taught in an open-air school they are loath to go back to a closed room. Because of the additional responsibility and additional work required, the teacher should receive extra remuneration. The open-air school calls for a degree of supervision of the child and of his home surroundings that is not required from the ordinary grade teacher.

A teacher who has had tuberculosis and has recovered sufficiently to stand the rigors of a hard day's work usually makes a good teacher for an open-air school. It is a mistake to ask a woman to undertake such work unless her health is of the best.

REGIMEN

The regimen of an open-air school will naturally vary for the different types of children. The tuberculous child will require a greater amount of rest and shorter school hours than the anemic or normal child. The normal child will not require any particular rest or any special food. The regimen considered

here is particularly adopted to the anemic or substandard child, as indicated in the second group of children mentioned above.

1. Breakfast

In some schools breakfast is given to the children after they arrive. This is often done in large cities where children are frequently sent to school without sufficient breakfast. It is doubtful if as a general procedure this should be recommended.

2. Baths

Most of the children who attend open-air schools should be given a bath at least twice a week. The teacher will usually see to it that the hands are washed when the children arrive at the school.

3. Classroom work

The school follows the regular curriculum and except for the fact that it is ungraded does the same work that is done by normal children. Records of hundreds of open-air schools show that the average standing of the children who attend these specialized classes, taken grade for grade, in comparison with normal children is usually higher. The children who attend the open-air schools do not, as a rule, fall behind in their grades.

4. Weighing and examination

The doctor and the nurse are present at periodic intervals, and the children are weighed about once a day by the teacher and whenever the nurse and the doctor are present. The medical examination may extend to each child at every visit of the doctor or may cover only certain children.

5. Lunches

In many open-air schools and fresh air classes, lunches are supplied at the noon hour. The lunch consists usually of soup, a glass of milk, bread and butter, with some fruit for desert. Light lunches are sometimes served to the children at 10:00 and

2:30 or 3:00, consisting of milk, cereal, cocoa and crackers, or of milk and crackers alone. The stimulation of the fresh air makes the children hungry. Nevertheless, it has been demonstrated that children will gain (perhaps not so rapidly) without any extra feeding. As the school authorities in most cities will not provide the free lunches, the problem of feeding presents difficulties. Where regular school lunches are served at low cost, this problem is easily solved. In most instances, however, lunches must be supplied by outside sources and if there are a number of fresh air classes or open-air schools, they present a serious burden.

6. Rest

More important than lunch is the rest that the open-air school provides. Most of the children who are subjects for open-air school treatment come from homes where insufficient rest is provided. A rest of a half hour or an hour in the morning and the same amount in the afternoon is highly desirable and is required. The rest may be taken either just before lunch or immediately following lunch, or, as is sometimes done, before and after. The children should be taught to sleep if possible, but if they do not sleep they should be required to maintain absolute quiet and rest. Provision should be made also for vacations and outings whenever possible.

7. Transportation

An open-air school usually draws upon the children from a wide radius and requires some sort of transportation either by trolley cars or by some other conveyance. The facilities for this should be provided both in the morning and at night. In some cases special busses are used, in others children are given car tickets.

LENGTH OF STAY

It is difficult to generalize on the length of stay for children who attend open-air schools and fresh air classes. Most open-air schools do not have facilities to keep a child more than a

year. Some children may require a longer period. Not infrequently children who have been in open-air schools are referred back for a second or third term, because they break down under the ordinary home and closed classroom regimen.

In the case of tuberculous children, the length of stay will be determined entirely by the condition of the disease.

MEDICAL CARE

The open-air school furnishes an unusually fine opportunity for the medical supervision and care of the limited groups of children. Here is a chance to study the child carefully for an extended period. An opportunity is given to correct physical defects, particularly teeth, tonsils and adenoids, and to study the improvement that usually follows such correction. The open-air school should give to the child a new appreciation of the value of health and make him a missionary of health for his own family and for his playmates. The most enthusiastic Modern Health Crusaders in the country are recruited from open-air schools. The medical and nursing service should also extend into the home in an effort to prevent the recurrence of conditions that in the first place required specialized treatment.

As to the follow-up of open-air school children, this is vitally important, but unfortunately it is too often neglected for lack of funds. The child who has such specialized training and treatment should be followed up for at least two years. If the nurse cannot go to his home, he should be followed up in the school or at a clinic. In New York City children discharged from an open-air class are supposed to report back for observation every week.

COÖPERATION WITH BOARDS OF EDUCATION

The open-air school is essentially an educational proposition and as such requires close coöperation with boards of education. Such coöperation must be established in a variety of ways, some of which may be listed as follows:

1. Establishment

In the securing of an open-air school in the first instance, a good deal of salesmanship is usually required to convince a board of education of the necessity for the investment in a specialized school. It costs extra money to run an institution of this character. Usually the extra money is well spent and thoroughly justified, but it is not easy to convince a school board in advance of this fact. Careful study of open-air schools in other communities, presentation of facts in striking way, a period of demonstration perhaps, and intensive education will be required to carry the point.

2. School hygiene

An open-air school rightly managed presupposes and always requires some system of school hygiene. It has now come to be recognized in all progressive communities that it is a waste of money to attempt an investment in "Three R's" without at the same time improving the health of the children. This can best be done by a system of medical school examination and by school nursing. The tuberculosis executive will, in many instances, have to sell this broader and more fundamental program before he can sell the particular specialized open-air school idea.

3. Ventilation

One of the most difficult ideas to sell to a board of education is the idea of proper ventilation, particularly by open-window methods. Ventilating engineers have succeeded in selling their artificial systems to school boards. The tuberculosis executive comes without any expensive equipment but finds himself often confronted with vigorous prejudice. He must be prepared to meet such prejudices and to show the advantages of open window ventilation as contrasted with artificial ventilation, especially that type of ventilation where the windows are nailed fast and all air must be conveyed by mechanical means to the schoolroom. To ventilate a schoolroom in cold weather

or, in fact, any other room properly, the air supplied must have four qualities, according to the exhaustive studies of the New York State Ventilation Commission:

a. Proper temperature. Air must be of a temperature usually between 68° and 72° F. A low temperature or a high temperature is bad and is not conducive to good mental or physical work.

b. Motion. Air must be in motion. It must be in movement and in circulation about the room. Stagnant air may be good air so far as its chemical content is concerned, but it will have a bad physiological effect upon the body. The only inherent quality of air is that of a gas. It expands of its own accord. All other changes are due to other causes.

c. Humidity. The air must have the proper amount of humidity; it must not be too moist and not too dry. The relative humidity will necessarily vary with the temperature in the room and out of doors.

d. Variability. Air must have that quality known as variability, that is, it must not always have the same relationships of temperature, motion and humidity, but the relationships of these elements must be varied.

Artificial devices have been prepared that will furnish air at a proper temperature, that will circulate it, and that will regulate its humidity. No artificial device has yet been devised that will provide the element of variability. This can be secured only by outside air. The open window provides this element. The open window should be available as a means if not *the* means of ventilation in every schoolroom.

SELECTED REFERENCES

- AYRES, L. P. *Open Air Schools*. Garden City, Doubleday, Page and Co., 1911. 171 p.
Bibliography: p. 159-165.
- BURKE, A. P. *Open Air schools*. Bloomington, Ind., 1922. 31 p. (Indiana University. Extension Division. Bulletin, vol. vii, no. 7.)
- KINGSLEY, S. C., AND DRESSLAR, F. B. *Open-Air Schools*. Washington, Government Printing Office, 1917. 283 p. (U. S. Bureau of Education. Bulletin, 1916, no. 23.)

MCDONALD, N. S. Open-Air Schools. Toronto, McClelland, 1918.
127 p.

ARTICLES

MARCUS, LEOPOLD. Open air classes in the public schools. Monthly Bulletin New York City Department of Health, 11:121-131, June, 1921.

Symposium on the Lymanhurst (Minneapolis) open air school for tuberculous children. Journal-Lancet, 42:237-39, 268, May 15, 1922.

CHAPTER XV

INSTITUTIONAL METHODS

In considering institutional methods as one of several parts of the technique of the tuberculosis program, this chapter will presuppose that the need for an institution has been established and that some money for building is available. It will also be necessary to treat the subject of institutional methods as has been done with certain other subjects, in a somewhat broad and general manner, directing the student to literature that will give him a more exhaustive treatment of each topic. For the purpose of discussion of method, the term institution may include the sanatorium for incipient cases, the hospital for advanced cases, the sanatorium and hospital combined, the preventorium and special camp, and the ward or pavilion of a general hospital devoted to tuberculosis. Some or all of the principles discussed in this chapter will apply to these various types of building.

PLANNING

1. A guiding principle

In planning a tuberculosis hospital or sanatorium provision for a given community, the National Tuberculosis Association has adopted the standard of one bed for every annual death as a minimum ratio. There have been institutions planned with this number in mind and it has been found afterwards that the number of beds provided was seemingly too large. A close analysis of the situation usually reveals that the number is not too large, but, on the contrary, that the organized community work, particularly the educational and case-finding activity, is too feeble. A hospital or a sanatorium is much like a dispensary. It will not solicit trade for itself. Numerous instances are on record where county or municipal tuber-

culosis hospitals, well built and equipped, have not been filled as they should be because of inadequate community promotion of the institution. Someone must solicit the patients for the hospital or sanatorium. This is usually the work of the tuberculosis association.

It is well, furthermore, in planning an institution of this character to ascertain if possible the relative number of cases needing care in the community—children, early cases and advanced cases. In local institutions at the present time it is customary to provide for all types of cases. If tuberculous children are to be taken, the number of beds to be allowed may have to be increased over the ratio indicated. If a preventorium is to be annexed, it will surely have to be increased. These are first considerations in planning an institution.

2. A second principle

A second guiding principle in planning an institution is to provide at the very outset a plan that looks forward to the fullest possible expansion. Scores of tuberculosis hospitals in every part of the United States are today suffering because of this lack of foresight. An institution, for example, was planned for one hundred patients. The buildings were grouped, the service facilities were provided, the entire plant was erected with the idea that this would be the utmost expansion. In less than five years it has been necessary to double the capacity. The result has been not only a hodge-podge of construction, but a very large and unnecessary additional expense. A projection of the institution into the future at its inception would have saved the community thousands of dollars. It is relatively inexpensive to lay out an institution on paper at the beginning. It is extravagant and unduly expensive to undo the effects of faulty planning after the institution has been running for a time.

3. Selection of site

It would seem to be trite to point out that the location and site of a sanatorium are of the most vital importance not only to the immediate construction, but to the entire administration and usefulness of the institution, if it were not for the fact that there are dozens of sanatoria and hospitals in every part of the United States that have made the grievous error of poor location and faulty site, only to find it out after the institution has been erected and when it is too late to remedy the difficulty. With the experience available at the present time, there would seem to be no reason for selecting a poor site. Carrington in his book on "Tuberculosis Hospital and Sanatorium Construction" points out a number of prerequisites of a site for a sanatorium, all of which have been strongly endorsed by the American Sanatorium Association. These conditions are quoted as follows:

In selecting a site in the open country for a tuberculosis sanatorium to house incipient and moderately advanced cases, a decision must be made as to whether the advantage of having the patients near at hand and accessible to their friends overweighs the possible benefit to be obtained by placing the institution in a region more favorable from a climatic point of view, but far from the patients' homes. It is now generally agreed that in the treatment of tuberculosis excellent results can be obtained in practically any section of the country and the desirability of local institutional provision may be accepted as an established fact. Within a short distance of almost every city and town, land can be obtained where tuberculous patients will do well.

In point of fact, the National Tuberculosis Association's Advisory Service on Institutional Construction places "accessibility" at the head of its list of factors to be considered in the location of a site for a sanatorium. Sites remote from centers of population are inconvenient alike for the patients and their friends, and for the personnel. It is difficult to attract and retain an adequate personnel, professional and general, if the sanatorium is in an isolated location. Furthermore, the cost of maintenance is increased by added charges for the conveyance of supplies.

4. Type of institution

Without taking into consideration the class of cases to be treated, tuberculosis institutions generally group themselves under one or more of three types: first, the cottage type; second, what might be called the pavilion type; and third, the combined cottage and pavilion type. Some of the earliest tuberculosis hospitals and sanatoria, such as Trudeau, Gaylord Farm and others were of the cottage type. They usually provide for a group of four or more patients each in a series of detached buildings scattered about the central administrative building or buildings. The Loomis lean-to type of construction in its original conception was merely a variation of the cottage plan, providing for eight to sixteen patients.

For purposes of hospitalization, tuberculous patients are usually classed as (a) bed or "infirmity" cases, (b) semi-ambulant cases, and (c) ambulant cases. For patients in class (a) the accommodation provided nowadays differs scarcely at all from that of a modern general hospital, except that provision must be made for open-air sleeping. For semi-ambulant and ambulant cases, the pavilion type of construction is very generally employed. The ideal pavilion is of one story only, and usually consists of a central portion containing a sitting-room and the usual toilet, bath and dressing-rooms; with sleeping quarters on each side of the central portion.

Formerly, the sleeping quarters consisted of an open ward but, as in general hospital construction, the day of the open ward in a tuberculosis sanatorium is past and gone. The most approved units nowadays are usually two-bed rooms, with a few four-bed wards.

The more recently approved type of construction for large institutions, as worked out by the National Tuberculosis Association in conjunction with the United States Public Health Service, provides for a combination of the advantages of the cottage and pavilion types. The principal advantage of the cottage plan is privacy. The principal advantage of the pavilion type is economy. These two advantages may be combined under one roof. For example, by proper planning

one may secure the privacy of small wards or detached rooms and at the same time have all the advantages of the economy that comes from housing under one roof. The new Detroit Municipal Sanatorium is an excellent example of this type of construction. The closest approach to a ward in the institution are rooms that house three or four patients. Most of the rooms open on individual balconies, giving privacy but at the same time providing for sufficient company to relieve the tedium of the many long hours out of doors or in bed.

There are many variations from these three fundamental types. In planning a hospital or sanatorium, the question of expense, the type and class of patient, the topography of the site, the section of the country in which the institution is located, all have a determining effect in deciding upon the character of the institution to be built.

5. Architect

"There are architects and architects," as a prominent tuberculosis sanatorium superintendent has said, when it comes to the planning of tuberculosis institutions. Other things being equal, it is highly desirable to select a local architect if possible. The National Tuberculosis Association now is in position to furnish expert and quite impartial consultant service with reference to plans and types of buildings, so that the mistakes that have been made in recent years by incompetent planning can be avoided. Any group of persons planning to build a tuberculosis hospital or building will find it to their distinct advantage to communicate with the Institutional Service of the National Tuberculosis Association. The service is rendered without charge except for necessary expenses.

6. Economy

A good plant, well located and well planned, will have a marked effect upon the economy of administration. Many a board of hospital managers has made the mistake of being too economical in the original plan, with the result that they

have paid over and over again for their economy in increased maintenance.

7. Classification of patients

The very purpose of the institution demands the utmost skill and care in its planning. A considerable percentage of existing tuberculosis hospitals are seriously handicapped for lack of facilities in the classification of patients. In the ordinary daily routine of the sanatorium or hospital superintendent, he receives men and women patients, and in each group he finds every gradation of prognosis in the disease. He finds also every stage of the disease and every conceivable type of personality represented. He may be called upon to admit children without any particular provision for them. Pregnancy may develop in one of the women patients. An infectious disease may originate in a certain group. These are but a few of the hundreds of contingencies that confront a tuberculosis hospital superintendent every day. To meet such contingencies, elasticity in the planning of an institution is necessary. The institution should be planned to provide for proper classification as well as for economy of administration.

CONSTRUCTION AND EQUIPMENT

The construction of a tuberculosis hospital should be of fireproof material, especially if it is to house bed cases and is more than one story in height. It is possible to provide for frame wings under some circumstances. Twenty years ago the view was prevalent that tuberculosis hospitals and sanatoria might well be constructed of cheap material, and economy was the watchword. The tendency at the present time is to build more with a view to permanency and following the lines approved in general hospital construction. The outstanding features of sanatorium planning today are that more comfort and more privacy are being provided for the patients; also that structures of flimsy, temporary type of construction are no longer considered suitable for the housing of persons ill with tuberculosis.

1. Materials

As to materials used, care in selection will secure economy in construction and will also have a very considerable bearing upon the entire operation of the institution during its lifetime. Several hospitals and sanatoria in this country have used materials on inside and outside construction that have proved a burden to the administrator. It costs a good deal of extra money to keep marble pillars and white tiled entrance halls clean and presentable. Cheap walls or floors are also expensive to maintain and keep in repair. It is to be expected that materials will vary in different parts of the country. If one decides that the material is to be plain but not fancy, the best result, as a rule will be secured. The day of the flimsy shack, particularly where the weather is cold and inclement, is past. Similarly the day of the marble palace has, we hope, long since gone by.

2. Grounds

A tuberculosis hospital or sanatorium must be a place of beauty and attractiveness, or else it defeats its very purpose. A patient comes to it not for a day or two, but for weeks and months. To lie in bed and stare at ugly, unsightly surroundings inside and outside, is not conducive either to the proper attitude in taking the cure, or to length of stay. The aesthetic element in the planning of grounds and buildings is too apt to be overlooked by economical boards, particularly where public institutions are being planned. One might almost say that it is a waste of money to build an ugly institution.

3. Equipment

The American Sanatorium Association in its sanatorium administration standards has laid down the following schedule under the heading "Plant and Equipment":¹

¹ If children are received, special housing and equipment are indicated. If surgical, orthopedic, or obstetric cases are received, or some treatments given, special rooms or equipment are required. Recreation building, chapel, general library and workshop for patients are highly desirable, especially in larger institutions.

- Wards (100 sq. ft. per patient, or no overcrowding)
 Rooms (100 sq. ft. per patient, or no overcrowding)
 Porches (no overcrowding)
 Dressing rooms (no overcrowding)
 Reception building
 Recreation room
 Infirmary (minimum) 20 per cent of beds (nurses' call system,^{*}
 Emergency rooms (isolating facilities)
 Service rooms (nurse, diet kitchen, sterilizer, etc.)
 W. C. (toilets) } 1 to 12 or better
 } 1 to 6
 Handbasins 1 to 4
 Baths
 Tubs 1 to 5 or
 Showers 1 to 10
 Toothsinks 1 to 12
 Slopsinks
 Drinking fountains, or drinking water facilities
 Dining room—size, arrangement, attractiveness
 Kitchen and pantry }
 Diet kitchen } Size, arrangement
 Cooler
 Medical staff house or quarters
 Nurses' home or quarters apart from patients.
 Officers' and employees' quarters
 Store rooms—sufficiency, fittings, arrangement
 Light, heat, power and hot water (or plant), capacity (sufficiency)
 Laundry or laundry work—equipment, capacity (sufficiency)
 Laboratory }
 x-ray room } Required in institutions over 50; see Factor Medical
 Morgue (or equivalent as necessary)
 Animal house
 Medical library, or ready access thereto
 Farm and dairy, if operated—plant, equipment, stock
 Fire protection
 Screening—awnings (as necessary)
 Equipment—(fixtures and furnishings) (sufficiency, suitability, quality)
 Ventilation facilities (sufficiency and suitability)
 Lighting facilities—natural (sunshine) and artificial; (sufficiency and suitability)

^{*} This means that 20 per cent of patients can be given proper bed treatment deemed necessary in sanatoria admitting only early cases. If advanced cases are taken, more "beds" are required.

Upkeep
 Grounds
 Buildings
 Equipment

ADMINISTRATION

In the exhaustive study of sanatorium administration standards adopted by the American Sanatorium Association in 1920, the following is a schedule of the relative factor weights in a scale of one hundred:

Location, etc.....	3
Plant and equipment.....	5
Administration.....	18
Medical service.....	74
	<hr/> 100

Under the heading of administration the association considers such important items as the following:

1. Board of managers

Every public or semi-public hospital should have some sort of board of managers. Most private sanatoria will also have an administrative body of this character. The efficiency of the administrative control of the institution will usually depend upon the vision and insight into the institutional problems that the board of managers exercises.

2. Finances

It would almost seem unnecessary to say that financing of a tuberculosis hospital should be adequate. Many an institution at the present time is suffering under the handicap of enthusiastic executives who brought it into being and convinced public bodies that the plant could be run for a dollar a day per patient. Eight or ten years ago there were a few institutions that could do this, but at the present time a dollar a day, under some circumstances, hardly pays for the food cost. At the present time (1923) average costs of maintenance of public and semi-private sanatoria range from \$15 to \$25 per week per patient.

A few institutions, where no resident physician is provided or where other peculiar local circumstances prevail are able to keep the cost of maintenance somewhat below the lower figure. They do so usually, however, at the expense of the patient, a procedure which does not seem to be justified by good sanatorium authorities.

3. Administrative staff

The administrative staff will consist necessarily of the superintendent and his immediate business assistants, housekeeper, storekeeper, bookkeeper, engineer, and others in similar capacity. Where the superintendent is a physician and is responsible both for the administrative and medical control of the institution, in most cases he is compelled by the very necessities of the institution to give a portion of his time to administrative detail with the result that the medical work suffers, unless he has unusually competent assistants. On the other hand, there is a good deal of difference of opinion as to the wisdom of having a lay superintendent and a medical director. There is bound to be a clash between the two. The question of personalities in the administrative and medical staffs is one that needs most careful consideration. Institutions have been wrecked or brought to the verge of ruin merely by failure to give proper recognition to the personal equation.

4. Food

Taking the 700 tuberculosis sanatoria and hospitals in the United States as a whole, one might find an outstanding cause of complaint in each institution about the food that is served. Any inspector of tuberculosis or other public hospitals has the frequent experience of receiving complaints regarding the food. While complaints of this character are universal, it should not be thought that all of them are unjustified. There is probably no phase of hospital administration that more vitally and immediately affects the lives of patients and staff alike than the food. Careful selection, not only in the raw food but in the manner in which it is served, is of prime im-

portance. Many institutions buy good food but serve it in ways that do not please the patient. Generally speaking, a tuberculosis hospital or sanatorium should set a standard in the selection, cooking and service of its food, that is above the standard of the patients' home environment, if possible. Quantity considered from the dietetic point of view is desirable, but quality and attractive service are just as desirable.

5. Accounting

The administrative service of the institution must be responsible for the finances and accounting. The books must not only show the balances available in the several appropriations. They must be able to give quickly and accurately an analysis of costs for each item of service. Thus, for example, the superintendent must know what is the per capita cost for raw food and for served food. He must be able to distinguish between the per capita cost for his nursing and other medical service, or between the cost for his coal and his electricity and light. The degree to which he can analyze these expenditures will, to a large measure, determine his ability to economize and to get the needed support. The National Tuberculosis Association will gladly advise institutions in the proper installation of accounting systems.

6. Records

Records, not only financial but medical, are to a sanatorium what the books of a bank are to its directors. The entire success of the sanatorium depends to a very considerable degree upon the accuracy of its records. From these records it must be able to report to its financial board and to the public the way in which money is spent.

7. Housekeeping

The housekeeping of a tuberculosis hospital or sanatorium is another phase of administrative service that affects the life of every patient. Bad feeling can be generated very fre-

quently by poor housekeeping. There is no excuse for careless or slovenly housekeeping. Neither is there an excuse for discourtesy on the part of the housekeeping staff. Too often, alas, both of these things occur. The housekeeping service must keep the building neat and tidy, but it must do so with the least possible friction and annoyance to the patients and other employes.

8. Power and light

If the institution generates its own power, heat and light, or if it buys these commodities from some central community agency, it must see to it that there is enough, but that extravagance in the use of heat, light, electricity and gas is eliminated.

9. Other Requirements

The American Sanatorium Association under its schedule lists a considerable number of other factors, such as regulation of visitors, annual report, purchasing, salaries and wages, organization and management of employes. The reader is referred to these Sanatorium Administration Standards which are available on application to the National Tuberculosis Association.

MEDICAL CARE

As has been pointed out at the beginning of the preceding section, the American Sanatorium Association places the greatest stress in the administration of a tuberculosis hospital on the medical service rendered. A weight of 74 on a scale of 100 is given to that particular factor. The association recognizes that many an institution, with an inadequate plant, poor location, insufficient finances, and faulty administration, has nevertheless been able to render an outstanding service because of the excellence of the medical care given. A striking illustration is the experience of the Henry Phipps Institute in its early days when a ward for advanced cases was operated in the center of one of the most congested districts of Philadelphia, poorly located and in a building poorly adapted to the

purpose, with nothing attractive about the surroundings and with the requirement that each patient admitted sign a statement permitting a post-mortem examination in case of death. Nevertheless, the institution was always crowded and had a waiting list, due apparently to the fact that nowhere else was such intensive medical service given to the patients.

1. Professional staff

The number of patients will determine the number of physicians and nurses. In general, one physician is necessary for each group of fifty patients. A fair average for nurses is one for each ten patients. If the cases are in the early stages, one nurse for every thirty may be enough, while if they are advanced, one or more to ten patients may be needed.

In the larger institutions, in addition to the resident physicians the professional staff may include a radiographer, a laboratory man, a pharmacist, a dentist, and such consulting and assisting specialists as may be required. For such large institutions the American Sanatorium Association proposes that one assistant resident physician should be provided for every fifty patients up to one hundred and fifty, and then one for every seventy-five. One assistant nurse is necessary for every ten bed patients. These ratios will have to be varied somewhat in institutions with a capacity of one hundred or less. It is well to point out in this connection that the overhead staff for an institution of less than one hundred beds, if it is properly run, is apt to be unduly costly.

2. Medical work

The medical work of the staff will consist of such items as the following: history, physical examination, chest examination (repeated at such intervals as may be necessary), nose throat and ear examination, routine laboratory work, x-ray and dental work, careful recording of temperature, pulse and weight, and the application of certain special diagnostic tests and remedial agents wherever the physician is qualified to

undertake them. In the larger institutions research of a definite character is advisable. A research laboratory, quite distinct from the routine diagnostic laboratory service, will frequently help to hold together a staff of high calibre that would otherwise not be interested in remaining in an isolated community.

3. Records

The medical records should include history, both medical and social, physical and chest examination with the laboratory and x-ray findings, treatment record, weight, temperature, diagnosis and exercise charts, data regarding social condition, discharge data, autopsy, and summary. Without such records the medical service cannot gauge the results of its work, nor report to others what is being done.

4. Laboratory work

The routine laboratory work should consist of examination of sputum, urine, blood, necessary bacteriological tests, animal inoculations, and autopsies if possible. The research laboratory work will be determined to a large extent by the abilities and aptitudes of the various staff members and by the funds available.

The use of the x-ray in the diagnosis of tuberculosis is becoming more and more important. No modern sanatorium can be considered as completely equipped unless it has proper facilities for x-ray work. Routine x-ray work should consist of both fluoroscopy and radiography, flat and stereoscopic.

6. Care of patients

Of the 74 points given to medical service under the scale of factor weights by the American Sanatorium Association, 40 are indicated under the head, "Care of Patients." Here the American Sanatorium Association notes such items as general medical supervision, rounds and visits; instruction of patients, general and individual; such special treatments as pneumo-

thorax, light, x-ray, tuberculin, vocational and occupational therapy, laryngological, hydrotherapy, etc.; diet; hygiene of the patient; discipline; comfort; recreation; regulation of fresh air; rest and exercise; occupation and training; nurses' training school; social service and follow-up work; and other items.

7. Instruction for physicians and nurses

The value of instruction for physicians and nurses is also clearly recognized by the American Sanatorium Association. The methods of instruction may take such forms as special meetings, diagnostic clinics, medical journal club, interne instruction, special students, special tuberculosis course, nurses' training school and special instruction to nurses.

CONCLUSION

In conclusion of the chapter on institutional methods, the tuberculosis worker who reads these pages may well note two important considerations:

First, that the outline given here is designed primarily to give to the lay worker an appreciation of some of the problems of those who are building and administering tuberculosis hospitals and other institutions. It is not designed to be a complete course in these subjects.

Second, that a sanatorium or hospital for tuberculosis patients is essentially made up of people first and buildings second. Everything that enters into the building and maintenance of the institution must contribute to the welfare of the patients for whom it is designed. This is the acid-test of institutional methods.

SELECTED REFERENCES

- CARRINGTON, T. S. *Tuberculosis Hospital and Sanatorium Construction*. 3d ed. rev. New York, National Association for the Study and Prevention of Tuberculosis, 1914. 182 p.
- The *Effect of Tuberculosis Institutions on the Value and Desirability of Surrounding Property*. New York, National Association for the Study and Prevention of Tuberculosis, 1914. 58 p.

- KELYNACK, T. N., *ed.* Tuberculosis Year Book and Sanatoria Annual. 1913/14. London, Bale, Sons and Danielsson. 476 p.
- PATTISON, H. A. The Agricultural and Industrial Community for Arrested Cases of Tuberculosis and Their Families. Washington, Government Printing Office, 1919. 46 p. (Federal Board for Vocational Education. Bulletin no. 32.)
- WALTERS, F. R. Sanatoria for the Tuberculous. London, Allen, 1913. 445 p.

ARTICLES

- AMERICAN SANATORIUM ASSOCIATION. Committee on Standardization. Final report. National tuberculosis association. Transactions, v. 16, p. 521-33, 1920.
Reprinted by the National tuberculosis association with prefatory note and title "Sanatorium Administration Standards."
- BALDWIN, E. R. Laboratories for tuberculosis sanatoria or hospitals. Journal outdoor life, 15:361-62, December, 1918.
- KIDNER, T. B. Notes on tuberculosis sanatorium planning. U. S. Public Health Reports, 36:1371-92, June 17, 1921.
Also issued as Reprint no. 667.
- KIDNER, T. B. Planning for occupational therapy, with special reference to curative workshops and recreation in hospitals and sanatoria. American Architect and the Architectural Review, 123:29-99, March 28, 1923.
- KIDNER, T. B. Planning of children's preventoria. Pencil Points, 2:34-36, December, 1921.
- KIDNER, T. B. A small children's building for a county tuberculosis sanatorium. American Architect and Architectural Review, 120:420-23, December 7, 1921.
- RASTALL, E. S. Standardization of tuberculosis sanatorium accounting. Journal Outdoor Life, 15:355-360, 371, December, 1918.

CHAPTER XVI

SURVEY AND STATISTICAL METHODS

The term survey in social nomenclature has come to mean a definite study of a community or part of a community for the purpose of finding out certain facts of community significance. It will thus appear that to the tuberculosis executive a survey is a pre-requisite of any attempt to sell to a community the idea of health or the control of tuberculosis. Before a selling campaign of any kind can start, the salesman must know his market. He must not only know the people to whom he is to sell, but he must know the kind of objections that will be raised to the kind of goods that he is to present. In health work he can determine these only by a survey.

OBJECTIVES

A survey should have two prime objectives:

1. Discovering facts

The first objective should be to discover facts of social significance to the particular problem. The facts to be gathered are not necessarily to be a complete compendium of information regarding the community. They should be facts that have a bearing upon the particular things that the tuberculosis executive wishes to find out. Too often executives make the mistake of presuming that they know the facts regarding a community and, either because of this assurance or because of laziness, do not make the necessary survey at the beginning of their work.

2. Arousing interest

The second object of the health survey is not merely to discover facts for the facts' sake, but to arouse interest in these

facts. Some surveys are for "local consumption," that is, they are not meant for the general public, but for a small, selected group, usually a board of directors. Other surveys, especially those that cover the entire community, should probably be exploited more widely. An exhibit, for example, may be the logical outcome of a survey. A series of newspaper articles, or even a motion picture may summarize it. The survey method is adapted to many different kinds of projects. Where it is used to find out health facts, it is usually pre-supposed that those facts will be spread far and wide for the benefit of the most people.

METHODS

There are a number of ways in which facts can be gathered, a few of which may be pointed out here:

1. Personal interview

The most obvious and probably the best way of gathering information is by personal interview. The personal interview method is necessarily limited. Where the number of people from whom information and opinions are desired is large, some other method must be used.

2. Records

If the community is up to date it has a certain system of records. These records will furnish some information. There are death certificates, sickness reports, police reports, newspaper files, undertakers' records, clergymen's books, physicians' notes, nurses' cards, hospital records. Oftentimes where there are neither board of health nor hospital records, recourse will have to be made to some of the other records suggested here.

3. Questionnaires

Not everybody in the community can be interviewed personally. Some will have to be interviewed by the question-

naire method, if this is desirable. Where information is required on a question that is clear and decisive and where it can be given by a "yes" or "no" answer, a questionnaire is desirable. Where complicated answers are required, the questionnaire is of doubtful value, particularly if it is sent to a promiscuous group.

4. Group conferences

Every community has groups of different kinds—women's clubs, labor unions, lodges, clergymen, physicians, parent-teacher associations, and others. Group conferences with these bodies will sometimes elicit information that cannot be secured in any other way.

5. Correspondence

Special correspondence within the community or with outside agencies will give information that is often of comparative value and helpful in determining the relative standing of the community along certain lines.

6. Observation

Personal observation, particularly if the surveyor is properly trained, is of the utmost and probably greatest value. This applies more especially to such conditions as housing, general sanitation and records.

OUTLINE OF A SURVEY

Miss Jessamine S. Whitney, Statistician of the National Tuberculosis Association, has published some suggestions for making a tuberculosis survey. Her outline, while not exhaustive, points out the principal facts that are necessary on entering a new community, particularly a town or county, in order to ascertain the ways in which tuberculosis control can best be sold to that city or town. The tuberculosis executive should not get the notion that a survey is applicable only at the time when the work is started. Surveys should be carried on at

periodic intervals. They may be special or they may be general. Miss Whitney's outline is for an initial, general survey. After the work in a community has been going on, it may be desirable to have a highly specialized survey dealing, for instance, with housing in relation to tuberculosis, or with the industrial incidence of tuberculosis particularly in certain plants, or with the problem of tuberculosis among school children, possibly in relationship to their standing or their housing conditions, or even a narrower study of children who have been exposed to tuberculosis with a view to ascertaining the need for a preventorium. The survey method is a tool that the tuberculosis executive must constantly employ. He must be on the alert to improve the community's bookkeeping so that surveying will become more efficient and easier. The following outline taken verbatim from Miss Whitney's suggestions should prove suggestive:

EXTENT OF THE DISEASE

1. Death and death-rates

a. What have been the general death-rates through a ten-year period up to date? A general death-rate is expressed as the number of deaths per 1000 of the population. It is found by dividing the number of all deaths during a year by the population as of July 1st of that year, and multiplying by 1000. The number of deaths may be obtained from the local registrar, who may be the county clerk, the town clerk, or the local health officer.

The 1920 Census figures for population are now available. The population for inter-censal years between 1910 and 1920 must be estimated. The method of doing this is as follows:

1. Take the population at the two censuses, 1910 and 1920 and find the difference.

2. The 1910 census was taken April 15, and the 1920 census January 1. Therefore, $116\frac{1}{2}$ months have elapsed between the two. Divide the difference in population by $116\frac{1}{2}$, and obtain the increase per month.

3. Starting with the 1910 Census figure, add two and one-half times the monthly increase obtained in (2) to find the population as of July 1, 1910, since $2\frac{1}{2}$ months elapse between April 15 and July 1.

4. To get the population for July 1, 1911, add 12 times the monthly increase (obtained in 2) to the population for July 1, 1910. And so on, adding this same yearly increase, until the mid-year population for each intercensal year is obtained. The mid-year population for 1920 should

also be used in working the death-rate and not the official Census population figure.

Compare these general death-rates with corresponding rates for the State and for other counties or towns in the State.

b. What have been the tuberculosis death-rates through a ten year period to date? The tuberculosis death-rate is expressed as the number of deaths from tuberculosis per 100,000 of population. It is found by dividing the number of deaths from tuberculosis for a single year by the population on July 1st of that year, and multiplying the result by 100,000.

The computing of tuberculosis death-rates through a series of years will show whether tuberculosis has been increasing or decreasing in that district. A sudden rise in death-rate for any particular year may mean that at that time more complete registration of tuberculosis deaths was effected either through a new law or more rigid enforcement. If such a rise is noted try to ascertain the reason.

In order to obtain the number of deaths from tuberculosis it may be necessary to go through all the death certificates for any year, which should be on record in the registrar's office, and pick out those deaths attributed to tuberculosis.

It would be well at that time also to determine which of such deaths are of residents and non-residents, as the death certificate should state the usual place of residence and the length of time the person has resided in the district where he died.

In some states the registration law requires that if a person whose residence is Brownsville, for instance, dies in Jonesville, a copy of his death certificate shall be returned to the registrar at Brownsville, although his death is originally recorded at Jonesville where it occurred.

The Bureau of the Census figures the tuberculosis death-rate on all deaths that occur in a certain locality, whether of residents or non-residents. It might be more helpful for our purpose to work another tuberculosis death-rate, using only deaths of residents within the district, and deaths of residents occurring outside the district, leaving out the deaths of non-residents (see Framingham Monograph No. 3, Vital Statistics). This is especially necessary if the district contains some state institution or has a large influx of tuberculous non-residents because of climatic or other conditions.

c. What are the variations in tuberculosis death-rates by color and race? If the district studied has any considerable part of the population, colored, separate tuberculosis death-rates should be found for both white and colored. The 1920 population for white and colored separately can be obtained from the Bureau of the Census at Washington. The tuberculosis death-rate for the colored is usually from $2\frac{1}{4}$ to $3\frac{1}{2}$ times that for the white population. To find tuberculosis death-

rates by race, it will be necessary to sort the death certificates according to race as entered upon them. The population by race is not estimated by the Census for inter-censal years. It will be necessary to take the population as given at the last Census Enumeration, which shows such divisions. Tuberculosis death-rates based on such population, while not accurate, may be used comparatively to indicate which racial groups in the population have the most tuberculosis.

d. In what age-groups do most deaths from tuberculosis occur? It will perhaps shed some light on conditions to sort the death certificates according to age and make a table showing the number of deaths at each age. Always use the age-grouping used by the Bureau of the Census, viz: "Under 5," "5 to 9," "10 to 14," "15 to 19," etc. These groups may be combined into ten-year age-groups if the numbers dealt with are small.

Find the death-rates by age-groups, using the population by age-groups, which should be available as soon as the results of the 1920 Census are published.

Compare these rates with those for the entire registration area to see if there are important variations which denote special conditions in this district.

e. Are there any occupations which show a large mortality from tuberculosis? It is well to sort the death certificates by sex and occupation. Death-rates by occupations cannot be obtained because it would be practically impossible to get the number engaged in each occupation. Besides the figures involved are too small to be significant. However, such a classification of the deaths alone in an industrial district might point to a particular hazard in some industry.

2. Cases

How many cases of tuberculosis were officially reported during the past calendar year? Nearly every state has a law requiring physicians to report all cases of tuberculosis to the local health officer or to the State Board of Health where there is no local health officer. Get a copy of your state law on this point. The law is very poorly carried out in all states. It is not unusual to find fewer cases on record than deaths for any one year.

The Framingham demonstration discovered that there were nine active cases to a death (See Monograph No. 5). This ratio may not be true everywhere, but one can get a rough estimate of the number of active cases present in a community by multiplying the number of deaths by nine.

It may be necessary to establish the total number of living cases by actual canvass. If so, this constitutes in itself a particular kind of survey, called a case-finding survey. To do this properly requires

considerable time. Physicians, hospitals and clinics, if any, charitable organizations, and any other community agencies should be consulted, and all known and diagnosed cases should be noted. Each case should be entered on a separate card, preferably 3 in. x 5 in., which should show age, sex, race, whether married or single, and number of other members of the family.

Classification of these cards will show the significant facts in regard to the living cases, and will show at a glance where the anti-tuberculosis work must begin.

EXISTING MEASURES FOR CONTROL

The following are suggestive inquiries to be made:

1. State

1. Is there one or more State Sanatoria?
2. Where are they located?
3. How many beds in each?
4. What types of cases are admitted?
5. Are all beds free?
6. How is admission to sanatoria obtained?
7. How many patients from this district admitted to State Sanatoria last year? The year before?
8. Is there a state law requiring physicians to report all cases of tuberculosis?
9. Is there a Division of Tuberculosis in State Board of Health?
10. What are its functions and activities?
 - a. Does it make sputum tests free?
 - b. Does it furnish containers for samples free?
 - c. How many sputum tests were made last year?

2. County

1. Is there a law authorizing the establishment of county sanatoria?
2. Is there a county sanatorium in this district?
3. How many beds has it? (Compare the number of beds with the number of cases needing hospitalization—one bed to each death.)
4. Has it a full-time medical superintendent?
5. How large is the administrative staff?
6. Does it take incipient or advanced cases, or both?
7. How is application for admission to it made?
8. Is there a full-time paid county health officer?
9. What are his activities in tuberculosis control?
10. Is there a county tuberculosis association?
11. Has it a paid executive?
12. How are the funds raised?

13. How much was spent by it last year in anti-tuberculosis work?
14. Does this association employ any nurses?
15. How many? What are their duties?
16. Does this association do any educational work, such as distributing literature, arranging lectures, etc.?
17. How much of this kind of work was done last year?
18. Is there a clinic within this district?
19. Is it available to all cases in this district? Is it free?
20. By whom managed?
21. What are the clinic hours?
22. How many cases were examined last year?
23. How many were sent to sanatoria?
24. How many received further care in their homes?
25. By whom was this care given?
26. Is there a county charitable or relief organization which aids tuberculous cases needing material relief?
27. How many were so helped last year? In what way?

3. Local (township, town or small city)

If the district surveyed is a township or a town or small city, the inquiries in 2 (county) above are directly applicable to this particular area. They will not then be repeated under this heading, but certain other inquiries will be added with consecutive numbering.

28. Is there medical inspection in the public schools?
 29. How often is this made, and by whom?
 30. Is any attempt made to discover pre-tuberculous children?
 31. If so, what effort is made to follow up these cases?
 32. By whom is it made?
 33. Is there an open-air or open-window class in any of the schools?
 34. How are children selected for this class?
 35. Are special lunches given?
 36. By whom furnished?
 37. From how great a radius in miles does the milk supply come? From how many producers?
 38. What are the local regulations in regard to the care of it?
 39. Is pasteurization practised? (Pasteurization requires heating the milk to 142 deg. F., and cooling it before bottling. Special apparatus is necessary for this purpose.)
 40. Is any loose milk sold?
 41. Are there different grades of milk sold?
 42. What are these grades, and how do they differ?
- (There are often state or local regulations for Grade A milk, Grade B milk, etc. The former must be produced and distributed under very strict sanitary conditions which include care of cows, cow-stables, utensils, etc. These conditions should be very carefully investigated.)

43. What local officer is intrusted with the supervision of the milk supply?

44. How often does he make inspection?

45. How often are samples of milk taken for laboratory tests?

46. By whom are the tests made?

47. Are herds from which milk comes tuberculin-tested? How often? By whom?

48. Is there a local or state ordinance requiring inspection of food products?

49. By whom is this inspection made? How often?

50. Is there any regulation in regard to the health of workers in bakeries, restaurants, soda-fountains, etc.?

51. Whose duty is it to make such medical inspection?

52. How often are they made?

53. Is there an anti-spitting ordinance? How many arrests for its violation last year?

54. Are the streets cleaned?

55. How? By dry sweeping, which only spreads the dust?

56. Are there any local or state regulations in regard to housing, viz: Distance between buildings, height of buildings, fire exits, etc.?

57. Is there a regulation governing congestion of persons in homes, i.e., regulating the necessary amount of cubic feet of space per person?

58. If so, what agency or person sees to its enforcement?

59. Were there any violations or prosecutions last year?

60. Are there any houses which are not fit for occupation? (See reports of National Housing Association, 105 East 22nd Street, New York City.)

61. If there is any manufacturing plant in the community, do its employes have medical examination? Before employment or regularly at yearly intervals?

62. How thorough is this examination?

63. Were any cases of tuberculosis ever discovered in these examinations?

64. How much was spent per capita last year in public health work?

65. How much was spent per capita for anti-tuberculosis work? The local health Board may not be able to give you these figures. In that case it will be necessary for the surveyor to work it out for himself. It will require considerable thought, discrimination and care, but the result will justify the time spent.

4. Other agencies

In addition to the obvious official and unofficial agencies for the control of tuberculosis, there may be other groups engaged in this work, for which specific inquiries cannot be formulated. The surveyor should

seek to find out whether any lodges, labor unions, churches or social clubs are engaged directly or indirectly in the anti-tuberculosis campaign. Information should be obtained as to how much they are doing and what relation the work of each bears to other community agencies.

DANGERS IN SURVEYS

There are certain dangers in making surveys that the tuberculosis worker should carefully note and consider.

1. Thoroughness

The first danger is that the survey will not be sufficiently thorough and will not, therefore, present a true picture. A survey, whether of the general type suggested by Miss Whitney or of special type, as for example, on housing, had better not be done at all if it is not done in a way that will present the facts as they are with reasonable completeness and accuracy. No community will resent being shown a picture of itself, if the picture is a true one and can be properly presented, and the background of facts is thorough and accurate.

2. Antagonisms

Any thorough-going survey is bound to engender antagonisms. There are few communities that like to have themselves held up to be looked at by all the people within and outside their circle. There are always interests in the community, business, political, medical, social, and sometimes religious, that are seriously opposed to having the true facts presented. The surveyor must be on the lookout for such antagonisms. He can hardly avoid engendering some, but he should try to engender as few as possible.

3. Presentation

A tactless or faulty presentation will often undo an otherwise good collection of information. As has been pointed out above, the object of a survey is not merely to gather facts. It must arouse interest. It goes without saying that the

interest aroused should be favorable. Unfavorable interest, from the point of view of the health salesman, is not to be courted. The facts can be presented either by a report or an exhibit, or by both methods, in a way that is tactful and decisive. The presentation must be made in the light of the temperament of the community and always with the realization that here is a method designed to sell a particular idea to the community.

4. Personal bias

Any survey that starts out to prove a conclusion previously reached had better not be done. The personal bias of the surveyor should be eliminated. He is a fact-gatherer and presents his conclusions not in the light of his own personal ideas, likes or dislikes, but in the light of the facts secured by an impartial careful study. As a rule it is better for the social worker or the surveyor to keep himself in the background in the presentation of his facts.

5. Use of survey

A serious danger in surveys is that the local group will pick out of the facts presented only those particular ones that happen to suit their fancy or convenience and will ignore the others. Some surveys, for example, have revealed a very serious situation with reference to the failure of physicians to report tuberculosis. It happens sometimes, when such reports are presented, that physicians overlook this fact and seize upon some other facts of relatively less importance. The surveyor must be prepared tactfully to press home all the facts secured and to keep the community informed so that it may see itself in the clearest possible light.

A COMPLETE SURVEY

A complete tuberculosis survey of any given community, such as has been attempted with marked success at Framingham, would require some such steps as the following:

1. A physical examination of the entire population and a

repeated examination of certain suspected individuals or groups, with a view to finding all cases of real or suspected tuberculosis.

2. An analysis of the sources of infection, bovine and human, with a view to minimizing these to the lowest possible degree.

3. A study of the particular hazards of the community that tend to lower resistance, either in the prevailing industries or in the other forms of community life, such as the school.

Given such a survey, a tuberculosis program could be worked out that would not only reach every known case, but that would strike at the sources of infection and help to build up resistance against disease.

SELECTED REFERENCES

- HILL, H. W. Community Defense. The Public Health Statistician. *In his* New Public Health, Macmillan, 1919. Chap. XII, p. 133-47.
- HORWOOD, M. P. Public Health Surveys, What They Are, How to Make Them, How to Use Them. New York, Wiley, 1921. 403 p.
- THE SICKNESS SURVEY. Framingham Community Health and Tuberculosis Demonstration of the National Tuberculosis Association. Framingham, Mass., 1918. 24 p. (Framingham Monograph No. 2. Medical Series I.)
- TUBERCULOSIS FINDINGS. Framingham Community Health and Tuberculosis Demonstration of the National Tuberculosis Association. Framingham, Mass., 1919. 35 p. (Framingham Monograph No. 5. Medical Series III.)
- WHIPPLE, C. C. Vital Statistics, an Introduction to the Science of Demography. New York, Wiley, 1919. 517 p.

ARTICLES

- BALL, H. J. A method for making county tuberculosis survey. Health News, New York State Department of Health, n. s., 14:63-67, March, 1919.
- EMERSON, H. The nature and purpose of a health survey. Public Health News, New Jersey Department of Health, 8:289-92, December, 1922/January, 1923.
- JACOBS, P. P. A survey nurse and nurse's tuberculosis survey for a small community. Journal Outdoor Life, 16:169-73, June, 1919.
- WHITNEY, J. S. Suggestions for making a tuberculosis survey. Public Health Nurse, 13:497-500, September, 1921.

CHAPTER XVII

FINANCIAL METHODS

THE CHRISTMAS SEAL SALE

The history of the campaign against tuberculosis in the United States is closely linked with the history of the Christmas seal sale. The Christmas seal grew out of a very definite need for a local tuberculosis sanatorium as conceived by Miss Emily P. Bissell of Wilmington, Del., in 1907. Miss Bissell had read an article on a Danish Christmas seal written by Jacobs Riis in the *Outlook* and conceived the idea of utilizing this plan for her particular need. With the coöperation of the Philadelphia *North American*, the first Christmas seal sale brought in over \$3,000 for a tuberculosis shack on the banks of the Brandywine.

The success of her initial venture emboldened Miss Bissell to propose to the American Red Cross, in which she was an enthusiastic worker, that that organization undertake a nationwide Christmas seal sale. Her suggestion was not at first received with favor, but she persisted, offering to finance the initial expense, and the Red Cross finally decided to try the idea and in 1908 launched the first national seal sale. Over \$135,000 was realized from the sale, without any particular organization or program, the sale being carried on largely through women's clubs. The Red Cross was more surprised at its success than anyone else. The second year the sale increased to over \$200,000 and the third year it showed a further increase.

By this time the National Tuberculosis Association had grown to a position where the increasing number of local and state associations throughout the country were beginning to require a steady and reliable means of support. Arrangements were accordingly worked out between the American Red Cross and the National Tuberculosis Association, whereby the latter became the general agent for the sale of seals in the United

States. The Red Cross lent its name and prestige and the capital necessary to finance the sale. The National Association conducted the entire promotion, supervised the expenditures, and in short, ran the seal sale. This arrangement continued until 1920. Since that time the Christmas seal sale has been conducted independently of the Red Cross by the national, state and local tuberculosis associations.

Since 1910 the seal sale has shown a steady increase. The 1922 sale, recently closed as these pages are written, has apparently brought in a return of over \$3,800,000 for national, state and local tuberculosis associations.

Along with the development of the seal sale has gone the development of state and local organization. The Christmas seal has been the means not only for suggesting programs to new organizations, but also for financing such programs. The future of the Christmas seal is dependent apparently upon the degree of organization that the national, state and local tuberculosis associations can effect. The Christmas seal sale is one of many methods of raising money for social work. It is not the only method used by tuberculosis organizations, but at the present time it is the outstanding and principal one. It answers the vital needs of a national movement, in that it is as much an educational as a financial method, and also in that it brings support at once to local, state and national work.

SETTING UP THE SEAL SALE

Much of the success of any Christmas seal sale will depend upon the thoroughness with which the campaign is conceived in advance. Too many executives see only that part of the seal sale in which they happen to be engaged at the moment and do not visualize the method in its entirety.

1. Program and budget

Of prime necessity in a seal sale are a program and budget. The tuberculosis executive is not selling seals alone. He is selling a program, and more than that he is selling a program

based upon a very definite budget. Both program and budget, in turn, are based upon a need that is so clear and presentable that it can be sold through the seal sale. The tuberculosis executive who attempts to sell the services of a nurse when he ought to be selling a well-rounded community program, or who lays stress upon an open-air school, when case-finding machinery is vital, is making a great mistake. He is asking the community to do too little. It is as bad as if he were asking them to do too much—to build a mausoleum, for example, for all the tuberculosis patients who die in the community.

2. Supplies

The supplies of a seal sale are well standardized. The National Tuberculosis Association through its state associations furnishes seals, posters in various sizes, health bonds, lantern slides, electrotypes, and other supplies. The state associations sometimes supply material supplementing that of the National Association or taking the place of some of the standard national supplies. A local association may also have some supplies of its own, as for example a local stuffer. This is particularly necessary in larger communities where a definite local program must be emphasized. The national or the state material may be used in its entirety, with the possible exception of a local stuffer. Close coöperation and advice between the state and national groups on points like this are necessary.

The tuberculosis executive must know what supplies are available, and, more than that, he must know how to use them. Indiscriminate use of posters, for instance, is wasteful and probably harmful. The stuffer has its place, but it is not designed to tell all that an association is doing. A window card may be valuable in its place, but it has limitations. The use of supplies is thoroughly explained in the selling guides issued by state and national associations.

The local seal agent must also appreciate that he cannot wait till November 15 or December 1 to order supplies. If he sees his sale through, he can order his supplies in April as

well as in December, and will by so doing save himself considerable money and much anxiety. Supplies do not distribute themselves. It takes time to distribute them. Therefore an early and definite ordering is desirable.

3. Organization

The huge financial "drives" of the war emphasize the fact that intensive organization is necessary to procure funds. The seal sale has been intensified but it has not yet organized the territory to the degree that it should be organized. Organization presupposes on the part of a local group some relationship between it and the state and national tuberculosis associations, either in the form of a contract or otherwise. It also presupposes that there will be a give and take of service between state, local and the national groups, both in the matter of personnel and field work and in other ways. More than this, it presupposes that the field will be covered in the most thorough-going manner possible. For example, there are always in the community special groups that are interested in tuberculosis itself. The interest of these groups should be intensified and the local program should be sold to them. They are the leaders on whom, for the most part, the campaign will hinge.

Then again, there are social clubs of various kinds, both men's and women's. Every one of these has someone who is a potential helper in the Christmas seal sale. The wise executive will find that someone and will, through him or her, reach the group with which he is connected. The strong political groups are often of great help in furnishing moral and financial support. They should be organized and their services enlisted. The labor groups and the fraternal organizations furnish ready-made material on which a secretary can count, if he can make his program apply to their peculiar needs. This should not be a difficult thing to do. The industrial and business organizations of the community, such as the Rotary Clubs, Chambers of Commerce, Kiwanis Clubs, groups of manufacturers, trade organizations, etc., present opportunities that should not be

lost in organizing the seal sale. The individual industrial plants and shops should also be reached. The religious groups should be aroused to take a definite part in the seal sale.

The field should be so organized that every man, woman and child will either take part in the seal sale or will be approached by someone who will induce him to buy or sell Christmas seals. The working man may be called upon to buy seals from his union, his lodge, his church, or his factory. The housewife may be asked to buy at her card club, at the church, or in some other circle in which she is interested. The school child may be aroused in the school, the Sunday school, the Boy Scout or Camp Fire Girl circle, or in some other group. Proper organization requires that the individual shall be approached with the message of the Christmas seals, not once but several times, and that he shall receive at least one direct request to buy. He may be solicited through the mails. He may also be solicited in a dozen other ways if care is taken in the choice of methods. Unless the solicitation becomes pestiferous, which is not likely to be the case, there is little danger of over-organization.

4. Methods

There are certain methods that have stood the test of time and that have proved, by experience, to be valuable. Not all of them are useful in every community. Most of them can be employed at some time in any well organized seal sale.

a. Lists. All of the methods used in the seal sale will depend upon the lists available. Lists of the right kind are built up with much effort. They do not grow in telephone books, city directories, automobile books or elsewhere, as some executives seem to think. The good list is made up of these basic groups of names. The mere fact that a man is a telephone subscriber or owns a car or lives on a certain street, is of itself not sufficient indication for sending him a mail sale letter or soliciting him personally to buy seals. He must be listed for the reason that he is a potential seal buyer of a certain specified amount. Hence, lists to be rightly prepared must be

graded according to the possible purchasing capacity of the prospect.

In a city of 100,000 population a relatively small percentage, probably not more than three per cent, at the most, should be approached personally and asked to contribute in relatively large sums. Another comparatively small group of from eight to ten per cent more will be asked to buy by mail. There may be a few groups set aside for group sales. The rest of the community will be solicited in other ways. As has been pointed out before, there may be a duplication in methods, so far as the individual buyer is concerned, but this is not in itself undesirable. It is usually highly desirable. The average citizen should be called upon to see seals and think seals everywhere he goes during the intensive period of the campaign. Without proper lists the great danger in a seal sale is that the man who should contribute fifty dollars will be asked to give one, while the man who should contribute in small sums will be solicited in ways that are extravagant and expensive.

b. Mail sale. The mail sale method of selling Christmas seals presupposes a carefully selected list, graded according to the number of seals to be sent in the letters. A man should not be asked to buy five hundred seals, if his financial status is such that he can buy only one hundred or two hundred. Neither is it desirable to send a man two hundred seals when he should be asked to buy one thousand. The mail sale requires a graded list, a sound letter or a series of letters of appeal, an enclosure, either as part of the letter or as a supporting piece of printed matter, and a plan for follow-up, if return is not brought in promptly. The regulations of the National Tuberculosis Association governing the mail sale are quoted here. They are based on the soundest experience of many seal sales, and if followed will produce the best results for the least money.

c. Regulations for mail sale.

1. Seals shall be mailed only to carefully selected lists of persons from whom there is some likelihood of favorable reply.

2. Care must be taken that no more than one letter containing seals sent on approval or not ordered, shall be sent to any one person, or to any one firm, corporation or organization in one year, although letters may be sent to different members of such bodies. Lists of the addresses must be kept in alphabetical order and repetitions eliminated.

3. Seals shall be sent only to homes or places of business within the territory assigned to the agent. The original letter which accompanies the seals must be courteously phrased to show that there is no desire to impose an obligation on the recipient to buy the seals and that he is privileged to return them. An explanation of the nature of the work for which the agent wishes to use the money must be made either in the letter alone or in the letter and an enclosed circular.

4. Each letter of solicitation which has not been answered shall be followed up by a second letter or postcard requesting payment for the seals or the return of the seals. This follow-up missive must be carefully worded to avoid any ground for offense. It must not be a dun in any sense. In case no reply is received to either the original letter or the follow-up the local agent shall make further effort to secure a reply from the prospective purchaser either by a second mail follow-up, by telephone or personal call.

5. The original letter to the prospective purchaser enclosing the seals shall be sent as first-class mail matter and the outgoing envelope must show the return card of the sender agent.

6. There shall be included with the seals and the original letter a return envelope addressed to the agent and stamped for return as first-class mail. This return envelope shall either have written on it the name and address of the person to whom the seals are offered for sale or shall be marked with a keying number identical with the number given the addressee on the list retained by the agent.

7. In all cases of complaint, the agent shall either write a personal letter fully explaining the plan of the sale or else call in person or by telephone to make proper explanation.

d. Personal solicitation. A relatively small percentage of the community will be called upon personally during the Christmas seal sale to buy large quantities of seals or health bonds of large denominations. The leading banker, the rich merchant, the prominent club woman—these are a few types that may be personally solicited. In personal solicitation it is axiomatic that a man or woman who is well acquainted with or related in a business or social way with the prospect can best sell him seals. The team method of drives which was utilized so successfully in the war has its limitations and probably cannot be used to any great

extent on a wide scale in these post-war days. There are a number of ways of personally soliciting small groups. If the number of prospects is not large, the teams need not be large either. A limited number of workers to sell Christmas seals or health bonds can usually be secured. In some communities bond salesmen lent by banks and other financial institutions have proved very effective in selling health bonds. Wherever a prospect is solicited personally he should not be solicited also by mail.

e. Booths. The booth is a method of personal solicitation, which is more or less of the shotgun variety. It tries to get anybody and everybody who comes within talking range of the booth. It may thus get in contact with scores of people who have been solicited personally, by mail, or in other ways. This will do no harm if the booths are properly manned and the atmosphere surrounding them is of the right sort. Booths may well be located in railroad stations, department stores, public buildings, and other places where people are accustomed to gather during the holiday season. Volunteers should be secured to man the booths. Paid workers are rarely worth while.

f. Children. The question of whether or not children should be allowed to sell Christmas seals, has been considerably discussed among tuberculosis workers. If children are used as gleaners, after the mail sale and personal solicitation have had a chance, they are of great value. Where they are used as a primary method or the only method, they get small sales where large ones were possible. Children in rural districts can often reach homes that could not be approached in any other way. Wisconsin, for example, has had great success in the use of thousands of school children in the Christmas seal sale. The educational value to the child is not to be discounted. Children in organizations, like the Boy Scouts, Camp Fire Girls, Girl Scouts, or similar societies are helpful, if used as messengers and for clerical work.

g. Groups sales. In factories, stores, churches, and similar places, sales can often be made to groups of buyers if the message is presented in a striking way. A five-minute talk before some

such group will sell five, ten or fifteen dollars worth of seals in relatively small amounts. Then, too, sales can be made to the employes in stores and other establishments if the heads of the concern give their consent. A solicitor, preferably in a uniform with the double-barred cross, can go about selling the seals without disturbing the work of the industry. Lodges and labor unions fall in the same category. In some instances, particularly in the larger cities, business men in certain lines, such as silk, pottery, glassware, or furs, will undertake to sell their fellow-merchants. Such opportunities are of great importance and should be cultivated. The individual sales may be small, but the interest aroused will be large.

g. Shops, stores, etc. Hundreds of shops, stores, postoffices in the rural districts and in smaller places offer a market for the sale of seals. The primary questions for the executive to consider is the cost of distribution and collection. Sometimes it does not pay to have too many seals out because of the expense involved in getting them back. The law of diminishing returns will to some extent determine how far one may go in this direction. In rural communities the fourth-class postmasters or country general stores often present a good channel for selling seals and usually can be induced to do so if the method is made easy for them.

h. Stunts. Stunts of a spectacular nature have value not only as publicity creators, but also as methods of selling seals. They are clean-up methods, it should be noted. A parade, a clown, a seal tableau, a spectacular vaudeville act,—all these are samples of stunts. The variety of stunts is limited only by the ingenuity of the seal salesman.

Many variations from these methods will suggest themselves. The primary purpose of presenting these standard methods is to furnish a starting point from which may be developed selling ideas that are best suited to each community.

5. Summary tabulation

The following tabulation is an effort to show in summary form the types of givers and the types of appeal that are best adapted

to each in the Christmas seal sale. Naturally, there will be considerable overlapping in either column. For example, the givers in classes 1, 2 or 3 may also be present as individuals in classes 4, 5 and 8. Similarly, the types of appeal are not to be considered as rigidly fixed and for use only in these classes. They are, however, to be considered as best adapted to the types of givers opposite to which they are indicated.

<i>Types of givers</i>	<i>Types of appeal</i>
1. Wealthy givers of \$100 and upwards (Note: The amount is merely suggestive. In some communities it might be \$50.00 or less.)	Personal solicitation by special group. (Note: This is a hand-picked list which should be solicited in a most special manner.)
2. Business men and givers of \$10.00 and upwards	Personal solicitation by team-workers or through vocational group organizations.
3. Business men, salaried men and women, and givers of \$1.00 or \$2.00 up to \$5.00 or \$10.00 (Note: It is sometimes inadvisable to use the mail sale for givers of less than \$2.00.)	Mail sale and telephone
4. Labor unions, lodges, clubs, and other groups	Personal solicitation by a member of the group
5. Small givers (less than \$1.00 in offices, stores, streets, etc.)	Booths and counter sale
6. Small givers in homes	School children
7. School children	Other school children and teachers
8. "Man-on-the-street"	Stunts

PUBLICITY

This discussion of a set-up for a Christmas seal sale has brought out thus far the importance of budget and program, supplies, organization, and right methods. Underlying the entire seal sale is publicity. It is not designed necessarily to sell seals directly. The number of seals sold as a result of newspaper or other types of publicity, considering the country as a whole, is negligible. The purpose of publicity is to create a background against which the salesman may approach a

sympathetic and educated public. It must strengthen and support the appeal of the mail sale letters, the personal solicitor, the booth operator, the school child, and in fact every selling method used in the sale.

The publicity brings the program and budget to the people in an interesting and striking way, and at the same time calls to their attention that the way in which they can best participate in this program is by buying Christmas seals. Unless it does these two things, the publicity fails.

There are two periods of Christmas seal publicity. The first is the pre-campaign or educational publicity, beginning usually about the first of November, or possibly a little earlier. The effort is here directed not at selling seals, but at stimulating interest in tuberculosis work. This leads into the second or seal sale period. Beginning with Thanksgiving Day or the day following, the publicity of the seal sale should be so intensive that Mr. Average Man will find it confronting him at the breakfast table, on the way to work, on his desk in the office, at the restaurant where he eats his luncheon, in the conversation of his associates during the day, on the billboard, in the street cars, in the newspaper and elsewhere on his way home, at the dinner table, from the lips of his children, at the motion pictures during his evening's entertainment, in church on Sunday, and everywhere he goes. The community should be saturated with the Christmas seal idea. To do this the use of every medium suggested in Chapter II is necessary.

Not only must the newspaper be cultivated and utilized in every possible way, but the magazines, trade journals, house organs and similar publications must also be used. Where news is not present, the publicity should create news. The Christmas seal sale is such a live community enterprise that there should be no trouble in creating news. Through motion picture theatres, the billboards, the shop windows, the street cars, in fact wherever people congregate and read printed matter, there the Christmas seal should be presented. Along with this should go the spoken message in church, theatre lobby, labor union and elsewhere. Following the spoken message should go

signs and exhibits of various kinds—electrical and otherwise—that will attract attention to the Christmas seal sale. The media should of course be adopted to the group or groups to be reached.

SOME GENERAL SUGGESTIONS

The following are a few general suggestions that should be carefully studied and followed by the tuberculosis executive in charge of the Christmas seal sale:

1. Organize early

There is no field of endeavor where the motto of the “early bird” is more applicable than in the organization of the Christmas seal sale. It is a mistake to think that the Christmas seal sale can be organized between November first and December first. It takes months to get proper lists and to arouse the interest necessary in certain individuals and groups who are to carry out the various methods suggested. Early organization is one of the best assurances of a good seal sale. In 1921, when financial conditions and other circumstances were against the seal sale in almost every part of the United States, the communities where the sale went ahead of that of the year preceding were those in which early and intensive organization had been effected. The communities where it fell back were those in which the organization was late and ineffective.

2. Cover the field

As has been pointed out, the field should be covered intensively. Every human being in the community is a potential seal buyer. The rich and the poor, the high and the low, all should be reached, not once but many times, with the message of the Christmas seal. The success of the tuberculosis campaign depends upon the extent of community support enlisted. There is no better way to get community support than through the seal sale. Keep publicity going. A sporadic publicity campaign is of some use, but it will not sustain interest. If the

campaign is extended over a period of ten or fifteen days the publicity must be as intensive and thorough-going during that time as it can possibly be made.

3. Have something to sell

Everything depends upon having something to sell. Make it clear just what community need will be met if the seal sale is successful. Now and then there have been seal sales where apparent success has been achieved without a real program, but they are the exception rather than the rule.

4. See the seal sale through

By visualizing in advance the entire sale in all of its various ramifications, rather than in just a few of its phases, a better grasp of the problem of organization and method will be secured. The great cause of most seal sale failures is reliance on one method rather than on a well thought out campaign that uses all methods.

5. Make good on your promises

Many an executive secretary has promised certain things to the community in a seal sale and has forgotten them after the seal sale, with disastrous results the following year. Do not promise at Christmas time what you cannot do in March, July or September following.

THE BOND OF UNION

The Christmas seal has been and still is one of the chief bonds of union that ties the national, state and local tuberculosis associations together. The solidarity of the tuberculosis movement in the United States has unquestionably been the most pronounced factor in the success of the campaign. To preserve and develop this great social resource demands the close, cordial and continued coöperation of every tuberculosis worker in the United States.

SELECTED REFERENCES

- Contract and Appointment of Agent for Christmas Seal Sale, 1923.
4 p. Contract between National Tuberculosis Association and
state agent,—includes "Definition of anti-tuberculosis work" and
"Regulations for the mail sale."
- [EAVES, B. G.] Suggestions for Selling Christmas Seals. New York,
National Tuberculosis Association, 1922. 46 p.
Introduction signed B. G. E.
- JACOBS, P. P. Publicity Sells Christmas Seals. New York, National
Tuberculosis Association, 1922. 31 p.

CHAPTER XVIII

FINANCIAL METHODS (*Concluded*)

COMMUNITY CHESTS

The development during and since the war of the so-called community chest or financial federation presents a situation to thoughtful tuberculosis workers that requires careful consideration, particularly from the point of view of conservation of the Christmas seal, the tried and tested method of raising money for tuberculosis associations.

The attitude of the outstanding leaders in the development of community chests, such as those in Cleveland, Detroit, Cincinnati and Rochester, is unfortunately not being emulated by many other similar leaders of funds of this character in other cities throughout the United States. The most progressive community chest leaders are thoroughly in sympathy with the Christmas seal sale idea and do not wish to impair its usefulness. They are also in sympathy with the claims of the national and state organizations and wish to see these claims supported. Contrasted with this, is the attitude of a very considerable number of other communities where the use of high-handed tactics by a small coterie of large givers has alienated the tuberculosis group from the other social agencies.

Where the community as a community, through its representative agencies and citizens, has agreed upon and developed some sound method of central financing of social agencies, the tuberculosis association should meet the leaders of such a movement in the spirit of coöperation. There is no reason why tuberculosis work should not take its place alongside the other social work agencies in any community in an endeavor to raise common standards. Tradition and experience, however, as well as sound common sense dictate that in any community chest a local tuberculosis association must insist upon certain considerations before it can with full self-respect enter into

such coöperative arrangements. In its standard contract and appointment for Christmas seal agents in 1922, the National Tuberculosis Association laid down the following significant conditions:

The agent hereby agrees to use its best endeavors to preserve and to continue as valuable as an educational enterprise as well as for the purpose of raising funds for anti-tuberculosis work, the idea of the Christmas seal campaign on the general plan set out in this agreement. In any community within the agent's territory where it is proposed for any reason to suspend or discontinue the Christmas seal sales, the agent, in the interest of anti-tuberculosis work and of the Christmas seal movement, hereby agrees to use its best efforts to continue the said Christmas seal sales under the general plan outlined herein and to refuse to countenance, agree to, or acquiesce in any alternative plan or arrangement in lieu of the seal sale which does not make provision for conserving in some manner the use of the Christmas seal sale as an educational enterprise and for the support of the national, state and local tuberculosis associations to an extent at least equal to the provision made for the same the preceding year, plus a reasonable increase for development.

The agent shall at all times strive to secure general recognition of the following:

a. The educational and financial value of the use of tuberculosis seals at Christmas time, holding these as of substantially equal value.

b. The importance of the work of the national and state tuberculosis associations in coöperation with the local association and the just claims of the former as well as the latter to financial support.

c. The necessity of developing the local tuberculosis work in accordance with a program approved by state and national associations.

The National Tuberculosis Association is not opposed to community chests as such. It stands for the closest possible coördination of community health and social activities, official and non-official. Where the community chest can bring about that coördination without impairing the program and support of the tuberculosis work, the tuberculosis association should consider favorably entering the financial federation. The conditions indicated above are designed to show what peculiar parts of the tuberculosis program should be preserved in case of union with a community chest. A brief expansion of these three conditions will make them somewhat clearer.

1. The preservation of the seal idea

The first of these is the preservation of the Christmas seal idea. This may be done, as is the case in Rochester, Cincinnati, Cleveland and other cities, by the distribution of Christmas seals, without cost, to community fund contributors, either by mail, through school children or in other ways. It may be done, as is the case in Minneapolis by allowing a limited Christmas seal sale, not on a large scale but by the mail sale chiefly. The Christmas seal has come to be an American institution and it is impossible for any American community to hedge itself about in such ways that its citizens will not hear of and demand Christmas seals. They are advertised through national media and their message gets into every remote corner of the country. The people have come to recognize the Christmas seal as a means for supporting tuberculosis work and community funds notwithstanding, they do wish to continue the Christmas seal sale. This is strongly evidenced even in those communities where the community fund has been operated longest. All of which goes to prove that the Christmas seal has an educational value in stimulating interest in tuberculosis work which is in every way equal to its financial value.

2. National and state claims

In the second place, a local association must insist that a community federation give proper recognition to the claims of the state and national associations. The entire tuberculosis movement has developed upon the idea that only by presenting a solid phalanx, with national, state and local agencies, can proper progress be made. The success of the tuberculosis movement is sufficient proof of the soundness of this policy. Not only must the local association require that its own work be supported adequately and with some assurance for steady expansion, which has been made possible through the seal sale, but it must also insist that a percentage equal to that which it would ordinarily give to the state and national work should be paid to these non-local agencies. When any city attempts to

deny the claims of the national and state organizations, it fails to recognize that tuberculosis is no respecter of corporation boundaries and that the problem of one city contributes to the problems of many.

3. Guarantee of local integrity

In the third place, a local tuberculosis agency has a right to demand, and should demand, as a condition of entering a community fund, that its integrity shall be guaranteed and that its work shall not be turned over to public officials without distinct acquiescence on the part of the non-official agency. There is a certain type of individual who will argue, without full knowledge of the functions of the non-official agency, that its work can and should be done by the board of health, and forthwith will demand that the community fund cease to support the tuberculosis society. Few non-official agencies in social work have so consistently turned over activities that they have initiated to public bodies as have the tuberculosis associations. It is generally conceded by far-seeing public officials, as well as by leaders in the non-official tuberculosis group, that the time is not yet approaching when non-official tuberculosis agencies can go out of existence. Their continuity should, therefore, be insured by the community chest. This fact, together with the related need for the steady progression of a program in the local tuberculosis association must be clearly borne in mind when entrance into a community chest is being considered.

If a community chest can fulfill these three conditions, a local tuberculosis association may and possibly should give consideration to the question of coöperating, provided other conditions are satisfactory. If they are not conceded, it is a matter of serious doubt as to whether tuberculosis societies are justified, viewing the matter broadly, in entering a community fund.

4. Advantages and disadvantages

In concluding this brief survey of community chests as a means of financing tuberculosis work, it is well to weigh care-

fully in the light of the foregoing paragraphs the relative advantages and disadvantages of central financing as it affects the local tuberculosis association. The advantages may be grouped under these three heads:

- a.* The association is relieved, in part, of the time and expense of raising its own budget.
- b.* The net return from the federation may be greater than from the Christmas seal sale.
- c.* The advice of a central budget-making committee, if it is of the right sort, is of considerable value.

The disadvantages of entering a financial federation may be grouped under these heads:

- a.* The combined community drive practically kills the educational advantage of the Christmas seal sale.
- b.* In most instances the net return from the financial federation has been very much less than would have been received from the Christmas seal sale.
- c.* The local community loses much of the national and state contact through its failure to participate in the biggest of all national movements in the tuberculosis field—the Christmas seal sale.
- d.* While financial federations have been known to increase the number of givers to social work in the community, it is an unquestioned fact that, with the exception of very few communities, financial federations have not been able to secure as many contributors to tuberculosis work as have been secured during the Christmas seal sale. The loss of this definite constituency to the tuberculosis association is a distinct disadvantage in the development of its community program.

MEMBERSHIP

Before the advent of the Christmas seal on a national scale the common method of financing tuberculosis work was from membership and contributions. As the Christmas seal strengthened its hold, the local and state membership campaigns gradually were abandoned. Most local associations still have a definite membership list. Some of the state associations have a relatively small number of members. Some have merely a nominal membership. There is unquestionably a distinct value in a membership that can be labeled

with name and address in case of need. The value is both moral and financial. In considering membership as a method of raising money, a distinction should be made between local and state membership.

1. Local

A local membership is in the very nature of the case a popular appeal. It is an effort to enlist, on a widespread scale, as many people in the community as possible, in a definite alliance with the tuberculosis association. It is hardly enough to do what is done in some localities,—claim that everybody in the community is a member. A claim of this sort nullifies the value of membership. Neither is it wise to compile a membership list with such nominal dues as twenty-five cents. To keep a membership list with dues as low as this does not pay. A dollar is usually the best fee for local membership. Children may be admitted at fifty cents. If possible, membership should give some definite privilege, such as the receipt of a bulletin.

In planning a membership campaign, whether by personal solicitation, by mail, or through a newspaper drive, a great deal of care must be exercised to keep the public from confusing membership with the Christmas seal sale. Sometimes a membership or donation campaign can be carried on in the middle of the year for a particular activity, such as a summer camp, and not interfere with the Christmas seal sale, especially if small contributions are sought, or a relatively small number of large contributions are raised. The value of the Christmas seal sale should, as a general rule, not be impaired by the membership campaign.

Efforts have been made by different communities to finance their work by means of local, unrelated membership drives. Even where such attempts have met with fair success during the first or second year, they have not been able to sustain enough interest to keep a membership alive and contributing on a community scale for long periods. Membership in itself implies an obligation to continue one's support year after year.

The Christmas seal by contrast does not in itself imply such obligation.

In some communities membership in the association is given to people who buy \$5.00 worth, or some other definite amount of Christmas seals. It is also given to people who sell a certain number of seals. This is a perfectly proper and laudable way of getting members. The giving of membership as a premium for the purchase of a specified number of seals fulfils all the necessities of membership that the by-laws may require. A voting constituency representative of the community is thus secured. At the same time, the obligation of membership, so far as renewal is concerned, is minimized.

A local association may also solicit group membership from labor unions, lodges and similar organizations charging five or ten dollars, as the case may be. If in connection with this it can furnish a lecture service, literature for distribution, or something of that sort, the effort is highly desirable.

2. State

In the case of state associations membership is an entirely different question. The state must always follow the policy that it will not attempt to solicit in a local community, funds that should go to support local work. Hence its appeals will necessarily be to men and women who have enough money and vision to support both the local and the state work.¹ This usually means a somewhat larger membership fee, preferably about \$5.00. It is questionable if a state association is justified in conducting a membership campaign at a dollar a head in a local community, especially if there is an already organized work there.

The wisdom of attempting a membership campaign in which the state and local associations will divide the returns on an even basis or on any other basis is also open to question, if considered in connection with the seal sale. In the earlier

¹In some sparsely settled states where local associations cannot be formed, a dollar membership has been tried and may be recommended.

years of state associations a few of these bodies attempted to raise money by levying a tax of a certain percentage on all local memberships secured. It was found impossible to enforce such a tax and the method, while interesting on paper, never proved practicable.

A state association should have a definite voting membership, constitutionally defined. This is required by the National Association as one of the qualifications for representative membership. Such membership can be secured usually from three sources:

- a. Individuals who will contribute, as a rule, relatively large sums.
- b. Local tuberculosis associations who become represented members.
- c. Large social and industrial groups with state-wide interests, as for example, the state federations of labor or women's clubs, the state grange, manufacturers associations, etc.

The Christmas seal sale is, however, the method, *par excellence*, for financing state associations.

COMMERCIAL DEVICES

Now and then the National Association is questioned as to the advisability of an organization's coöperating with some commercial concern that is selling soap, chewing gum, cigarettes, or something else and is willing to give a certain percentage to the association. As a general rule, alliance with commercial concerns in this manner is open to the gravest danger. The tuberculosis association has no assurance whatever that the commercial concern will not exploit it to its disadvantage. The exploitation may not be immediate and probably will not be so. If within three, four or five years the concern should come out with a statement that the Blank Tuberculosis Association had endorsed its product or had in some other way expressed itself in relation to this product, the damage would be done and the harm would be almost irretrievable.

The straight sale of certain merchandise, such as chocolate, books, etc., on a commission basis, may have some value but it is doubtful, when one considers that the same amount of energy in the seal sale would produce a much larger return.

Some associations have used with a fair degree of success a plan for collecting and selling tin-foil, waste paper, etc. Where the overhead organization is not expensive, the handling of such a proposition may be undertaken with some profit, especially where children do the collecting. If, however, an elaborate collecting and selling machinery, with its related bookkeeping and office facilities, must be installed, the venture may be considered as open to question.

DRIVES

As to the value of financial drives with paid "money raisers," little need be said. So long as the Christmas seal sale is rightly handled the drive is not necessary and is likely to prove a serious danger. There are a number of reputable concerns that are engaged in the money-raising business. They have accomplished good results in certain types of movements such as hospitals, colleges, etc. The tuberculosis movement is one in which they have not been able to get very much success. It is probably due to the fact that the Christmas seal sale is different from every other method of raising money for tuberculosis work. In considering a financial campaign of this character, the executive must always think of the relative cost, not as the promoter gives it to him, but as he can get it from outside disinterested sources; the possible danger of unfavorable exploitation; the reaction after the drive is over on the Christmas seal sale; and the difficulty of fulfilling promises that financial campaigners are free to make and that the tuberculosis association will find almost impossible to fulfill.

ENTERTAINMENTS, FETES, ETC.

No attempt can be made in these pages to discuss in detail such methods as tag days, entertainments, fetes, garden parties, etc. In February 1922, a group of young women interested in a tuberculosis relief agency of New York commandeered one of the leading hotels of the city and ran it for twenty-four hours, the proceeds going to tuberculosis work.

The sale of carnations and flowers on a tag day basis has been of use in some communities. In New Hampshire, Poinsettia Day, a statewide institution conducted by the state tuberculosis association adds about \$3,000 to their revenue, without apparently affecting the seal sale. It is held during the seal sale. Paper poinsettias are sold by the tag-day method. The ordinary entertainment with paid or volunteer talent is also a common method. On the whole these methods are useful for relatively small groups, such as auxiliaries, sanatoria, etc. They are not to be commended for a community agency such as a tuberculosis association, which must look for its support from everyone in the city, town or county.

SELECTED REFERENCES

- HANDBOOK FOR CAMPAIGNERS. Membership Campaign. New York, National Association for the Study and Prevention of Tuberculosis, 1918. 15 p.
- THE INTEGRITY OF THE CHRISTMAS SEAL. New York, National Tuberculosis Association, 1922. 28 p.
- PERSONS, W. F. Central financing of Social Agencies. Columbus, Ohio, Columbus Advisory Council, 1922. 284 p.

ARTICLES

- DEVINE, E. T. Welfare federations. *Survey*, 46: 202-205, 269-271, 401-403, May 14, May 28, June 18, July 16, 1921.
- I. How not to do it: Philadelphia.—II. The mid-west spirit: Louisville.—III. Where it works: Cleveland.—IV. The national agencies: general considerations.
- NORTON, W. J. Financial federations. *Survey*, 49: 89-90, 232-33, 367-68, 499-501, 646-48, October 15, November 15, December 15, 1922, January 15, February 15, 1923.
- Also issued as pamphlet of 16 p.

CHAPTER XIX

COÖPERATION WITH PUBLIC OFFICIALS

The campaign against tuberculosis is part of a great public health movement and should always be so considered. As has been pointed out in the discussion of publicity, tuberculosis is one phase of this broader public health campaign. The broader campaign implies a recognition of the official aspects of community life as well as of the non-official aspects. It implies further, that the tuberculosis movement must of necessity coöperate with public agencies—city, county, state, and federal.

SOME LIMITATIONS OF PUBLIC OFFICIALS

Before considering in detail the relations that should exist between non-official and official agencies in the tuberculosis campaign, it may be well to call attention to the fact that public officials are necessarily limited and restricted in what they can do and cannot do, because they are paid out of public funds. Individual office-holders are limited in this way and in that, but in general all public officials are limited by the following sets of restrictions:

1. Budget appropriations

In the first place, it should be borne in mind that the public official operates as a rule upon a budget, which is set aside for his use by some responsible public body, such as a city council, a board of estimate and apportionment, or a state legislature. Or he may be limited by statute in such a way that he cannot spend money for certain purposes. In some states, for example, county governing bodies are not allowed by law to spend money for the establishment of tuberculosis hospitals. Until 1908 this could not be done in New York State. In other words,

the appropriation of money that the public official has to spend is generally strictly confined and specified by law. He cannot spend money for things for which he has no appropriation or statutory right.

2. His duties limited

Similarly, the duties and functions of a public official are usually defined by statute or ordinance. There are some things that the law specifies he must do and there are others specified that he cannot do. While he may have certain discretionary powers, even these are usually hedged about by precedent, court decisions, or statute.

3. Responsibility to taxpayer

It is also of importance to recall when dealing with public officials that, in the last analysis, whether he is an appointed or elected office-holder, he is responsible to the taxpayers and voters of his constituency. He represents the community, or at least a certain part of the community, and is paid by the community to perform certain duties. For this reason he must be peculiarly sensitive to public opinion. In the enforcement of an anti-spitting law, for example, he can go only so far as public opinion sanctions his actions. This does not mean that the public official is necessarily bound on all occasions to act in consonance with public opinion. He may sometimes defy his constituency in his public acts, but he always knows when he does so that he is in danger of criticism, censure or removal.

It is of the utmost importance that the tuberculosis worker should bear these limitations in mind when he is coöperating with public officials.

WHAT IS COÖPERATION?

In the jargon of social work there are probably no two words that are more overworked and more frequently misapplied than the words "coöperation" and "coördination." They have sometimes been facetiously called the "co-twins."

Coöperation, as the etymology of the word implies, means a working together. It takes at least two people to work together. There can be no coöperation, strictly speaking, where one person or one side gives everything and receives nothing. The mutuality of undertaking implied in the term coöperation is too often forgotten. Because of this fact it is well for the tuberculosis worker to remind himself always when he thinks or speaks of coöperation whether he really means what he is talking about.

RELATION BETWEEN NON-OFFICIAL AND OFFICIAL

Bearing in mind the limitations of the public official and the meaning of the word coöperation, what then is the relation that should exist between the non-official and the official agency? It may be taken for granted that for some time to come, at least, the former type of agency must and undoubtedly will play an increasingly important part in the development of tuberculosis and public health programs. No better basis for a discussion of the relationships that should exist between these two important community groups can be laid down than that postulated by Dr. Charles J. Hatfield in the following words:¹

We must start with the complete acceptance of the fact that the duly appointed health officer is the sole agent responsible for the health of the territory he represents. His functions are obligatory, and no part of the obligation can be handed over to others. When the organization of our communities has reached the point of universal completeness; when all our officials are all-wise, and are striving only for perfection; and when the public is educated to a point where it can recognize its needs and will provide money in sufficient quantity to enable the officials to meet the needs, then it may be useless to consider the function of non-official health agencies. But that time is not yet come. In most places officials and official action are not yet perfect; the public is not yet thoroughly aroused and educated; and we must admit that any aid toward the desired end is welcome, provided it is properly worked into the general plan.

¹Relative Functions of Health Agencies—Viewpoint of the Non-official Agency, *American Journal of Public Health*, December, 1920.

With this basis for consideration the functions of the non-official agency in relation to the official agency may be grouped under the following heads:

1. Demonstration

The non-official agency is the proper one to show to the official agency new methods and new programs. The official agency, restricted by the form of its appropriation, cannot experiment. It must follow prescribed courses of procedure. The official agency in American community life represents the majority of the people, and must, therefore, in fairness do what the majority wishes done. Until, therefore, the non-official agency has demonstrated a need and educated the majority of the people to appreciate it, the official agency cannot fairly assume responsibility or take action. The non-official agency can and should experiment and, if possible, demonstrate the value of new technique to the official. Such methods as the sanatorium, the open-air school, and the public health nurse have all been tried and tested by the non-official agency and have been demonstrated to the official as sound and desirable community methods and expenditures. They are now supported largely by public funds.

2. Education

The non-official agency in tuberculosis work stands primarily for the education of the public. So, too, does the official agency, but it has also other special duties and functions that are possibly of greater importance. Both the official and the non-official agencies should, if their work is properly coördinated, carry on educational activities for the promotion of the public health and the prevention of tuberculosis. The non-official agency may prove very helpful to the official agency, particularly the health department, by spreading through its own peculiar channels the pronouncements of the health department on matters of disease prevention. In fact, the most authoritative statement that the tuberculosis association

can as a rule promulgate is a statement that has the official sanction of the duly approved health department. There is another way in which the non-official agency through education can be of service to the community and to the health department and that is with reference to the building of public opinion favorable to the approved activities of the health department. The public official needs the support of the non-official agency in the education of his constituency with reference to what he has done or is proposing to do along certain lines. In an educational way, therefore, the non-official agency and the official agency can and should work very closely together.

3. Stimulation

The non-official agency exercises a vital function which may be designated stimulation, that is, the function of endeavoring to raise all types of tuberculosis work up to the highest standards of efficiency. In the exercise of this function it commends, criticizes, or condemns other non-official or official work. This criticism should be constructive and its effort should tend constantly to raise the level and standard of work. No official agency can do this for itself or for the community as a whole.

4. Organization

The non-official agency is in a much more strategic position to organize community resources and to bring them to coöperate with the official agency than is any official group. In times of stress it can organize the entire community behind a measure to support the official agency.

5. Legislation

In the securing of legislative action either from local or state bodies, there is abundant opportunity for close coöperation between the official and the non-official agency. In some instances it may be better for the non-official agency to initiate the legislation, while in others it may be more desirable for the

official agency to do so. The legislative bodies will sometimes look with more favor upon a request, for example, for increased appropriations, expansion of power, reorganization of staff, or development of some new procedure for the official agency, if that request comes from a non-official group. The voluntary agency can present the claims of the official body without any selfish interest in the matter and can thus forcibly back up the official agency in desirable health measures. The best types of tuberculosis legislation that have been enacted in various states have been worked out jointly between the official and the non-official agencies, as for example in New York State, and have been pushed through the legislature or city councils or county boards by coöperative action on the part of both groups.

6. Research

The tuberculosis movement is based upon research. The epoch-making laboratory discoveries of such men as Koch, Theobald Smith, Trudeau and many others have laid a foundation upon which much of the educational propaganda of the tuberculosis movement has been based. Similarly, in the field of social research, the studies of Sachs, Armstrong, Dublin, Whitney and many others have shown the tuberculosis movement new lines of activity that should be undertaken. The methods and programs of the tuberculosis campaign are based upon medical and social research. As a general rule, it is extremely difficult for an official agency to secure funds for research because of the obvious fact that research is in a sense demonstration or experimentation work. It therefore devolves largely upon the non-official agency to perform this vital function for the tuberculosis movement. It is an extremely important function and one that should be exercised always in relation to the ultimate rôle of the official agency.

7. Coördination

Finally, there is the function of coördination which the non-official agency can exercise to the peculiar advantage of all

concerned. In any normal American community there are a great variety of organizations that are in some way or other attacking the tuberculosis and health problem. The tuberculosis association and also the health department are interested in coördinating the activities of all of these different agencies. Most of these agencies are voluntary ones. It has been proved from experience that the non-official tuberculosis agency can as a rule bring together these various groups for the support of the health department or some other official group if action demands. This is a distinct function of coördination. Similarly, the non-official agency can act as a coördinator in bringing together various official groups that have a more or less direct interest in tuberculosis, so that these groups will work in closer harmony with each other and with the other groups of the community. In the creation of public opinion for or against an official agency or act, the coördination function of the non-official tuberculosis association is of vital significance.

WITH WHOM TO COÖPERATE

Having considered the fundamental relations existing between the non-official and the official group and the functions of the former in relationship to the latter, we next take up the consideration of some of the principal groups of officials in the community with whom the tuberculosis associations must of necessity coöperate.

1. Local boards of health

The most obvious official group with whom the tuberculosis association must constantly coöperate is the local board of health or the local health officer. In some communities the tuberculosis association may find it necessary to work for a stronger and more efficient board of health. In others the province of the tuberculosis society may be to strengthen and back up an already going concern. In still others there may be need for the creation of a new health department. This is particularly true in certain rural counties where the need for a

full-time health officer may be the most pressing and immediate aim that the tuberculosis association should strive for. There are few services, broadly speaking, that a local tuberculosis association can render to a community that are of greater value than the development of a community need and demand for a full-time, properly trained health officer with necessary staff and equipment.

The local tuberculosis association will also work with the health department in many particular ways. As has already been pointed out, the health officer, like every other public official, is limited in his ability to enforce certain laws and ordinances by the degree of public opinion that he has back of him. The tuberculosis association may render a valuable service by informing the public and developing opinion with reference to such matters as the reporting of living cases, the enforcement of the anti-spitting law, the forcible removal of dangerous consumptives, and similar activities. In many instances the tuberculosis association may be able to do its best work by working with the city officials to secure for the health department more nurses, or more clinic facilities, or a consultation service, or some other agencies that are helpful in finding tuberculosis. Mention has already been made of the valuable service that can be rendered in coöperative educational activities. There are a great variety of ways where by close coöperation the use of the printed word, the spoken word, the motion picture, the exhibit and many other educational activities can be developed in the true spirit of coöperation by the tuberculosis association and the health department.

It may be necessary under some circumstances for the tuberculosis association to demonstrate to the community the need of some activities such as a nurse, an open-air school, or a tuberculosis hospital. The significant thing to note in this connection is that there always is a limit to the demonstration period and that the tuberculosis association, if it is wise, will know when it has created a sufficient amount of public opinion to warrant the turning over of its demonstration activity to the official health department.

2. County governing boards

The increasing number of county tuberculosis hospitals and county health officers in the United States has brought the governing boards of counties into a close relationship with tuberculosis associations. These county commissioners, supervisors, or freeholders, as they are variously called in different parts of the country, are usually elected or appointed for the purpose of administering the funds raised from taxation for strictly county purposes. The tuberculosis association will have occasion to ask these county bodies for support in securing appropriations or for actual appropriations for such activities, as for example, hospitals and sanatoria, nurses, case-finding clinics and similar activities. Most county bodies are rigidly limited in their methods of expenditure of taxable funds. The tuberculosis association should realize what these limitations are and if necessary should endeavor to secure legislation to expand the powers of the county governing bodies. The county boards are usually responsive to the demands of the taxpayers of the county. The tuberculosis association should therefore seek to educate the community with regard to such projects as a hospital or a nurse before a formal request for an appropriation is made from the county board.

Too many tuberculosis workers have condemned county boards as "political" agencies because they have not readily responded to their requests for support or appropriations. Even the most grossly "political" official can be made to sense the need for certain tuberculosis machinery, if the tuberculosis association has created enough public opinion back of its request. There are probably few official agencies that are in closer touch with their own voting constituency than county and city governing boards.

3. State boards of health

Coöperation between tuberculosis associations and state boards of health is usually carried on from state headquarters. In those states where there are district health officers or sani-

tary inspectors representing the state board of health, the local tuberculosis association may also be called upon to coöperate directly with these state officials. In matters of legislation and administrative policy, it is better for the local tuberculosis association to deal with the higher state officials through the accredited state association.

4. Budget committees

The tuberculosis association should endeavor to work wherever possible with those financial boards and committees of official agencies that deal directly with appropriations. Budget committees of city or county boards, or boards of estimate and apportionment in larger cities, are usually responsible for making, or at least recommending, certain appropriations, or for including or excluding from the budgets of public officials certain items. The tuberculosis association will usually find it necessary, therefore, to appear by representation or otherwise before such finance bodies. The normal increase of appropriations to health boards, tuberculosis institutions, and other official agencies secured thus through the coöperation of voluntary non-official tuberculosis associations has amounted in recent years to large sums of money. In this relationship again the non-official tuberculosis association endeavors merely to interpret to the official body the desires of the majority of citizens of the community.

5. Park departments

With departments of parks there will be occasion to coöperate both in the furtherance of recreational facilities and in securing permission to give outdoor lectures, picnics, outings, etc. The tuberculosis association may be called on also to aid the park department in securing additional recreational facilities for the community. This may become an important part of a local program.

6. Charities department

The charities department or charities officials in most communities dispense the public relief, either outdoor or indoor, that the community supplies. The tuberculosis agency, therefore, will have to keep in touch with this group. Some charities departments operate institutions or furnish nurses or social workers. Careful coöperation should be given in all these directions, but the tuberculosis worker must ever keep before the public the idea that tuberculosis control is a health and not a "charity" or relief problem.

7. Boards of education

With boards of education the contact between the tuberculosis agencies is growing more and more close. In the development of open-air schools and provision of proper ventilation of school rooms, in the promotion of the Modern Health Crusade, in the distribution of literature, in giving talks and lectures, in medical school inspection and school nursing, in nutritional activities and in many other ways, the tuberculosis associations are coöperating more and more closely with the school authorities.

In general the tuberculosis association should cultivate the good will of the city, county and state officials. These officials in our American democracy represent the people. Each one stands for a certain number of constituents. To sell health to the official is in some instances equivalent to selling it to his constituents and then having the constituents sell it to him. This may mean an election or some other form of expression of public opinion. Sometimes the latter method may be the easier, but this is not always the case.

The tuberculosis associations have a distinct part to play in community health programs. They should not try to go beyond their provinces, neither should the official endeavor to do those things that the non-official agency can do better. The health official who fails to coöperate with the non-official agency loses much more than he gains thereby. His work, like that of

the tuberculosis agency, can best be accomplished by an aroused community sentiment. Such community sentiment can best be secured by the closest coöperation with every community agency.

SELECTED REFERENCES

Legislative Record of the State Committee on Tuberculosis and Public Health of the New York State Charities Aid Association, 1908-1922. 4 p.

ARTICLES

ARMSTRONG, D. B. The state, the municipality, and the private tuberculosis associations in the control of tuberculosis. *Journal of the Outdoor Life*, 17: 9-16, January, 1920.

CRASTER, C. V. The respective functions and the coöperative relations between public and private health authorities. *Monthly Bulletin*, Newark, N. J. Department of Health, p. 1-4, October, 1922.

Relative functions of official and non-official health agencies—a symposium. *American Journal of Public Health*, 10: 940-69, December, 1920.

I. View-point of the official agency, by Haven Emerson.—II. View-point of the non-official agency, by C. J. Hatfield.—III. What is the matter with public health, by C. T. Nesbitt.—IV. Relation between official and non-official health agencies, by F. G. Curtis.—V. Coördination of state and private enterprises in public health work, by W. H. Hattie.—VI. Discussion.

WHIPPLE, G. C. The education of health officers. *International Journal of Public Health*, 2: 261-81, 337-53, May/June, July/August, 1921.

Also in *Public Health Reports of United States Public Health Service*, 36: 2593-2622, October 21, 1921.

PART TWO

Programs of Tuberculosis Work

INTRODUCTORY NOTE

The first part of this book deals with methods, considered without any special relation to a community program. We have dealt with educational, institutional, and other methods quite apart from their place in a plan for organization of community work. This second part of the book will deal with methods also, but in their definite relation to programs for local, state and national work. It will discuss, in addition, the functions and duties of these three main sub-divisions of tuberculosis work in relation to one another and in relation to other social and public health movements.

CHAPTER XX

LOCAL PROGRAMS FOR URBAN COMMUNITIES

Programs of tuberculosis work may be considered from several points of view. One might consider them from the medical angle and discuss the community machinery in relation to those agencies that are provided for the prevention of infection, the control of disease, and the prevention of mortality. Or one might consider programs from the point of view of the budget, pointing out what could be done with five hundred, a thousand, five thousand or twenty-five thousand dollars. This chapter will consider programs rather from the point of view of correlation of methods and will endeavor to show the place of the various methods discussed in the preceding part of this book in relation to one another and as parts of a well-rounded program for an urban community.

The essential difference between urban and rural life requires separate treatment of the programs for each kind of community. While many of the basic principles are the same, the application of these principles and methods in the form of programs varies considerably between urban and rural centers.

FEATURES OF A LOCAL PROGRAM

In considering a local program it should be clearly borne in mind that we are not thinking merely of the activities carried on by an anti-tuberculosis association or any similar form of non-official agency. A community program for the control of tuberculosis must take in all of the activities of official and non-official agencies and must endeavor to correlate one with the other, in order that there may be no overlapping or duplication and certainly no competition. The aim of a community tuberculosis program is to provide the necessary machinery, from whatever sources available, that will prevent tuberculosis and provide the proper treatment and care for those who have the disease.

1. Education

Of first importance in a community program are those agencies that provide for education of the public. Bearing in mind what has been previously pointed out, that education must be extensive, intensive and continuous in the development of a program of education, we turn to those various groups in the community that can coöperate in this way. There are the directing agencies, such as the anti-tuberculosis society or the board of health, which should work in complete harmony each with the other. There are also the more definitely participating agencies in which one may include newspapers, churches, schools, labor unions, lodges, women's clubs, etc. The board of health and the tuberculosis association will also be participating agencies as well as directing ones. The aim of the educational part of the community program is two-fold—first, to see to it that the general public, the so-called “man-on-the-street,” has an intelligent appreciation of tuberculosis as a personal and community program; and second, to arouse sufficient interest on the part of the people of the community to secure by joint action those other agencies necessary for the ultimate control of the disease.

2. Survey

Along with and possibly preceding the educational part of the program will go surveys. The survey method must be applied early and it must be applied at intervals throughout the life of the entire program. The survey method is a very distinct adjunct of the tuberculosis campaign. Without it the educational, the institutional, and practically all of the other features of the program fail. It must furnish the facts on which all of the rest of the program is built.

3. Nurse

In the development of a local campaign the nurse is usually one of the first pieces of community machinery adopted. The nurse or nurses must appreciate, even in the early and formative

stages of program development, that they are not the whole program. They are but a part of a great social development. Their functions, whether in case-finding, bedside care or education, must fit into those other functions of the varied agencies that go to make up a complete urban program.

4. Clinic

Under the heading of clinic we might also include that form of medical machinery which is comprehended under the terms "consultant," "medical director" and similar terms. The clinic, whether it be a permanent institution or a traveling clinic, or both, as an agency in a community program provides facilities for diagnosis and treatment and makes possible the wider extension of the medical facilities of the tuberculosis program into the lives of the men, women and children of the community. The medical and nursing machinery, as adjuncts to the clinic, must create the demand for it. Similarly, the educational and survey agencies of the program will also feed the clinic.

5. Hospital and sanatorium

The hospital and sanatorium may be combined in one institution. They may be two or more institutions, the hospital being located in or near the city and the sanatorium at some more distant point. The hospital provides primarily for the advanced cases and for those that for various reasons cannot be removed far from their homes. The sanatorium is more distinctly for the favorable cases. As a general community policy, one might lay down the principle that wherever possible hospital and sanatorium provision should be in separate institutions. As a matter of practical community procedure such a plan is frequently found to be impossible. This is particularly true of cities of less than 300,000 population. For these smaller cities the county or district hospital must provide both for the incipient and the advanced cases. This can be done satisfactorily, but the results are not as satisfactory, all things considered, as with separate institutions.

The hospital and sanatorium are closely related to the other parts of the program. The educational, the survey, the nursing, and the clinic facilities all tend to fill the beds of the institution. Without these the sanatorium probably would not be. Its function in relation to the broader program of the community may be three-fold—first, to treat and care for patients who can be cured or restored to a reasonable degree of working efficiency; second, to care for those who cannot be cured and who had best be segregated as foci of infection; and third, to educate patients to care for themselves and to become missionaries of health and tuberculosis prevention. In all of these relations it fills a very definite part in the community program.

6. Open-air schools

The open-air school for the anemic, exposed, malnourished or sub-standard child is in a sense a supplementary agency to the sanatorium and hospital. The open-air school for the tuberculous child, as has been pointed out before (Chapter XIV) should be a part of the tuberculosis sanatorium. The other types of open-air schools may be conceived of as institutions designed to keep patients out of the hospital or sanatorium.

As part of a community program the open-air school is related to the board of education, the board of health, or such other agencies as the community may provide for school hygiene, to the nurse, to the clinic, and also to the survey, because the survey will discover the need for various types of open-air schools and fresh air classes. The open-air school is also a talking point in the publicity campaign. The appeal of a child in a tuberculosis program is of distinct and concrete value.

7. Preventoria and summer camps

In a well-rounded program of urban work, especially in those cities where congestion of population is serious, the preventorium and summer camp is a necessary part of the campaign. The children, whose home environment tends

constantly to bring them to the verge of breakdown with active tuberculosis, need supervision and care at least during the summer months—if not at other times—when ordinarily they would be allowed to run wild in the streets or compelled to work under adverse conditions. The preventorium and summer camp are adjuncts of the open-air school and the sanatorium. They are related to the clinic and the nurse, and also to all of the other school machinery of the community, as well as to the general health machinery. Indirectly they are related to practically every agency doing the work of a tuberculosis program.

8. Industrial work

In any large city some program designed to reach the industries and the worker should be developed, if the control of tuberculosis is to be accomplished. A program of industrial work fits in logically with every other part of the program. It is related to the educational, to the survey, to the nurse, to the clinic, to the institutional, to the open-air school, to the relief, to the financial and the fund-raising activities. The grouping together of large numbers of men and women for the purpose of earning or living, presents problems that the tuberculosis program should combat in coöperation with industrial agencies. These problems should not be attacked, however, purely as they relate to industry. They should be attacked also from the angle of their relation to all community life.

9. Municipal work

Under the heading of municipal work one might include such activities as center about legislation and the enforcement of ordinances for reporting of living cases, spitting, housing, school hygiene, etc. The securing of a well equipped health office and the provision of adequate funds to maintain it form a most important part of a tuberculosis program. Similarly, where open-air schools and school hygiene are of such significance, the support of an intelligent board of education that

appreciates the value of health in the schools is a distinct part of a program of this character. Recreational facilities, the control of the food and milk supply, the supervision of markets and coöperative buying arrangements, and in fact practically every department of municipal governments offer to the tuberculosis program opportunities for coöperation by which that program may be made better and more useful.

10. Coördination

As a further distinct part of a tuberculosis program, the coördination of public and private agencies, and of all community agencies one with another, is of supreme importance. A good program presupposes the smooth working together of all the various parts of the machinery for the control of the disease. The clinic, the nurse, the hospital, the sanatorium, the official, the non-official, the health and social agencies, all should be working one with another in smooth, harmonious relationship to secure the best type of community program.

11. Relief

No program for the control of tuberculosis can ignore the relief aspects of the problem. The relief agencies of a community generally deal with tuberculosis as one of a number of problems creating dependency. Most of the relief agencies have found that it is their most serious single problem. It is generally conceded by social workers and tuberculosis executives that it is not a wise plan to provide special machinery in tuberculosis associations for the relief of tuberculosis patients. It is better to use the regular relief agencies, such as the associated charities, charity organization societies and other family case work groups. The administration of relief requires a technique of case work, which is, as a rule, outside of the experience of the average nurse and tuberculosis worker. To secure proper institutional care, or even home care, demands in most cases some sort of supplementing of the family budget, particularly in those cases where the sick person is the bread winner.

The Home Hospital plan developed by the New York Association for Improving the Condition of the Poor, and the intensive family relief method of the same organization, may well be adopted in other large cities. In connection with certain clinics, as in New York City for instance, auxiliaries for relief purposes have been developed. Not infrequently a tuberculosis nurse must secure special relief. In some instances the public authorities are called upon. In many instances the city or county authorities are required to give care in public institutions at reduced cost or free of charge. Viewed from the point of view of program and without particular reference to the method, relief machinery must find a distinct place in any well developed community plan for the control of tuberculosis.

12. Medical examination

Supplementing the activities of the nurse, the permanent clinic, and the traveling clinic, a program for the control of tuberculosis should provide definite community machinery for periodic medical examination. As has been pointed out before, the creation of a proper system of school medical inspection and the development of an industrial program will provide the machinery necessary for the medical examination of a very considerable portion of the population. The remainder of the population may be reached through periodic medical examination drives or by the institution of certain centers where people will feel free to go at any time for physical examination, by the development of the consultant service, or by other diagnostic agencies.

13. Home care

Home care as a part of a tuberculosis program might be comprehended under the heading of nursing or clinic. It deserves special emphasis because of the fact that there are so many tuberculosis patients who must be treated at home. To this group of patients the nurse, the clinic, the sanatorium, the educational program, the relief agencies, and in fact all of

the other parts of the tuberculosis program are a distinct aid. The plan for standardized home treatment initiated by the National Tuberculosis Association in different parts of the country requires, in fact, a period of three months in the sanatorium as a training for the patient, followed by the use of all the medical, educational, relief and sanitary agencies in restoring the patient to health and strength at home. One of the greatest needs in tuberculosis programs at the present time is the development of more definite programs of home care.

14. Fund-raising

The fund-raising methods in a tuberculosis program are of necessity related to everything that the program does. In the Christmas seal sale, in a membership campaign or in any other financial effort, the community must know the entire program and must realize the particular part of the program for which the funds are to be used. It may be for a clinic or a nurse; it may be for organization and educational work; it may be for a survey. Whatever the use of the funds, the fund-raising methods must relate themselves to the program as a whole.

It is a great mistake to consider the raising of funds as a necessary and burdensome task, distinct and apart from tuberculosis work. One sometimes hears a tuberculosis secretary say, "I have to spend so much time on the Christmas seal sale that I cannot do my regular tuberculosis work." This is pure nonsense. A Christmas seal sale is tuberculosis work and is integrally as much a part of the program as the nurse, the clinic, the hospital, or the open-air school.

15. Summary

The foregoing enumeration of various features of a tuberculosis program is by no means complete, but an attempt has been made to place the principal parts of a program in relationship to one another and to show how each one is linked up with all of the rest. This catalog of agencies should also point out to the intelligent worker that a program of tuberculosis work can

be comprehended only in the broadest terms of community organization, carefully coördinated and smoothly functioning.

PROGRESSION OF A LOCAL PROGRAM

An ideal local program presupposes an intelligent planning in advance and a steady progression toward a goal. The goal of the program is the finding of every case of tuberculosis, the placing of every case under adequate care and control, and the provision of machinery to prevent the recurrence of cases in the community.

While it is appreciated that any progression is subject to modification by an innumerable variety of local situations and is to a certain extent, therefore, ideal, it is suggestive to consider a progression of this character as will be done in the following paragraphs.

1. Preliminary survey

A preliminary survey is necessary on entering the community. It may require merely a scanning of the population, the acquiring of a few facts with regard to the death rate or the registration of cases, and a mere superficial study of the situation as gathered from the observation of records and conversation with individuals.

2. Education

At the very outset education must begin, based of course upon the facts secured in the preliminary survey and upon knowledge of the tuberculosis problem in general.

3. More complete survey

Along with and following a preliminary period of education will go a more complete survey, an effort to find out the true inwardness of the situation, the incidence of tuberculosis according to sex, age, nationality, occupation, geographical distribution, and so forth.

4. Association

About this time will develop plans for a local association. Out of the preliminary education and the surveys should come a desire to organize, and if the money and the program are forthcoming, the association should be formed.

5. Nurse and secretary

Following the formation of the association, an executive should be employed. Sometimes the executive is a nurse, sometimes both a nurse and a lay executive are employed. Many communities have started their programs with a nurse, and from this beginning have grown the association and all the rest of the program.

6. Clinic

After the nurse comes the clinic, the need for it usually growing out of the case-finding activities of the nurse.

7. Hospital

The hospital also logically develops from the cases discovered by the nurse and the dispensary.

8. Sanatorium

The sanatorium grows with the hospital. Sometimes it precedes it, as has been the case with most state sanatoria; sometimes it follows it.

9. Open-air schools

The open-air school is usually a later development, brought about by the activity of the tuberculosis association in reaching out into the community and discovering uncared for children.

10. Industrial work

Similarly, the industrial work will come after the program is under way and when the case-finding machinery of the nurse, the clinic, and other efforts are found to be inadequate.

11. Public health provision

The full-time health officer and the proper official machinery for the control of tuberculosis will grow out of the needs thus far developed in the program. While health officers will be found in most communities before the tuberculosis association appears, the activities of the tuberculosis campaign may be relied upon to arouse the community to demand a higher grade of official health machinery than had previously been considered necessary.

12. Preventorium

A preventorium or summer camp would be a next step in the development of a program. Too often the preventorium and summer camp, like the open-air school, appeal to tuberculosis workers as an early step. In some communities proper development of a community program has been side-tracked because of the enthusiasm of a group of individuals in a camp, preventorium, open-air school, or sanatorium. This is not in line with the best method of progress.

13. Relief

The relief agencies will probably have to be brought into the program fairly early—certainly as soon as the nurse begins her work or before.

14. Fund-raising

The fund-raising activities will, of course, be active from the very beginning, but they will also be active throughout the development of the program.

15. Coördination

The coördination of local activities with those of state and national associations will develop steadily as the program progresses.

The principal value in keeping in mind a progression of a local program is the avoidance of placing undue stress upon any

phase of the program at the wrong time. The first efforts of the program should be bent toward case-finding; the second phase of the program should be towards care and treatment; and the third towards the prevention of infection and the building of resistance. Along with all of these will go education, probably dealing with all three phases of the program, but emphasizing each in its turn.

THE FRAMINGHAM PROGRAM

To illustrate the abstract considerations of the preceding paragraphs regarding programs and their progression, no better community can be selected than Framingham, Massachusetts, although the program there is not entirely urban and the town is relatively small.

Framingham was chosen in 1916 as the seat of a demonstration to be conducted by the National Tuberculosis Association with a fund furnished by the Metropolitan Life Insurance Company. The aim of the Demonstration was to show whether, by the application of the most approved methods of tuberculosis control, the death rate from this disease could be reduced to a reasonable minimum. Framingham was selected from a number of cities in New York and Massachusetts as being an average town and having an average death rate. For ten years preceding the Demonstration the death rate had averaged 121 per 100,000. For the year 1921 the death rate reached the low level of 40 per 100,000.

It should, of course, be pointed out, before using Framingham as an illustration of a local program, that the situation there is somewhat atypical, particularly as regards the amount of money expended from outside sources. With this fact in mind, the program in Framingham may be described under four general heads as follows:

1. Case-finding

One of the first efforts of the Framingham Demonstration was to find out how many cases of tuberculosis there were in

the community. The board of health had on record 27 known cases, on January 1, 1917, when the Demonstration started, a fair average for communities of that size in Massachusetts. The first step of the Demonstration in case-finding was education. The next step was an intensive drive with the nursing and clinic machinery. The next step was a sickness survey of a somewhat general character, the purpose of which was largely educational. Then followed a careful process of education of the medical profession and still further education of the community as a whole. After this had gone on for several months, a more careful physical examination drive was conducted, with the help of local physicians and outside experts. Following this the medical examination program in the public schools was perfected by the employment of a full-time school physician and the increasing of nursing facilities. The large industrial establishments of the community were urged to install more adequate medical and health supervision. Along with the latter efforts there was brought into the community the tuberculosis consultant who, working with the individual physicians of the community, has been the most powerful single agency in case-finding. With all of these activities has gone a consistent effort to induce physicians and others to report to the health authorities all cases of tuberculosis. In a little over a year the number of known cases had increased to over 200, and at the present time practically all cases of tuberculosis in the community are on the records of the health authorities.

2. Preventing infection

A second phase of the Framingham Demonstration program has been the definite steps taken to prevent infection in the community. In this endeavor the Demonstration has undertaken a number of different activities. Education has been first and foremost and continuously the method applied. As a direct attack upon the problem provision was secured, through municipal action, for a better milk supply, thus minimizing the danger of tuberculosis infection to young children from that source. The anti-spitting laws were also more carefully en-

forced, and by a gradual process of education it has come to be more and more unfashionable in Framingham to spit in public places.

Advanced cases of tuberculosis as well as incipient cases were given institutional care in state and private sanatoria and hospitals, thus removing the danger of infection to their homes and to the community at large. The industries of the community and the working men themselves were urged to carry on definite activities to prevent spitting and to lessen the hazards of infection by control of sneezing and coughing in the workshop and elsewhere. Through the official and non-official agencies the community's sanitary work was improved. Similarly school sanitation was given careful consideration, particularly with reference to the spread of disease in the classroom. Statistical research had an important bearing upon this program of the preventing of infection.

While it is difficult to secure actual figures, there seems to be every reason to believe, judging from such tests as have been made, that the dangers of infection, particularly in young children, have been materially lessened by this phase of the Demonstration program.

3. Building resistance

The third phase of the program has been that of building resistance or improving general health. Here again education has been definitely directed toward a teaching of proper health habits. The Modern Health Crusade has been intensively applied in the schools. Newspaper publicity, posters, lectures, talks and motion pictures have been used to teach the adult population.

The open-air school and the summer camp have helped to build resistance in the children who were known to be physically below par or to be exposed to the disease. Similarly, the Demonstration has helped to secure recreational facilities in the Civic Center, in the parks and playgrounds and elsewhere, all of which have for their definite purpose the building of resistance. The infant and baby welfare work has been

primarily for the purpose of building resistance although it has had a bearing also upon the prevention of infection.

The industrial hygiene program in all of its various ramifications has had a marked effect on the general improvement of health and the building of resistance against tuberculosis. The correction of physical defects discovered by medical examination, the regulation of working hours and conditions, the better spirit among the working men—these are but a few phases of the industrial hygiene program that have tended to build resistance.

The school hygiene program with its nursing and medical inspection, its better ventilation, its dental clinics, its provision for the correction of adenoids and diseased tonsils, as well as its teaching of health, has also had a marked effect upon the building of resistance.

In general the Framingham Demonstration has proceeded upon the assumption that it is the business of a tuberculosis association to make healthy people healthier and to raise the level of health and resistance of those who are below par. The slogan "Health First," which has been adopted by the community, is an indication of the spirit generated by the Demonstration.

4. Treatment of disease

The fourth phase in the Framingham Demonstration is the treatment of disease. One might comprehend this under the prevention of infection or the building of resistance. For purpose of clearness it is treated under this separate heading. The Demonstration has aimed to put under some form of treatment or supervision every known case of tuberculosis. The degree of treatment or supervision is varied. To some it has been institutional care in hospital, sanatorium or preventorium, to some it has been intensive home care with frequent visits of nurse or physician; to others it has been merely an occasional call at the health center or an infrequent visit to a physician. Many cases have been restored to working efficiency or have been declared quiescent and arrested.

The educational facilities of the Demonstration have been directed to the use of treatment facilities, particularly to the use of sanatoria and hospitals. The increasing number of incipient cases discovered by the Demonstration reflects the growing efficiency of the case-finding machinery of Framingham, and also indicates that patients are aroused to the possibilities for better treatment of the disease. Vocational training and physical readjustment have been provided for those who have needed it. The treatment phase of the program has endeavored to secure for each tuberculous patient, open or closed, that degree of care that best fitted his or her individual case.

SUMMARY

In planning his program for urban work, the local tuberculosis executive may well make a list of the machinery and activities of his community for the control of tuberculosis and group them under the four main phases of a program as indicated in Framingham. Such a grouping will show him at a glance whether his program is reasonably adequate and what is the next step.

In most cities the tuberculosis program does not develop rapidly; it grows steadily and slowly as it should. It is often well to project it ahead for a period of two or three years, or more, and to lay down a definite plan of procedure for that period. There are few American communities that will not support adequately a well-rounded program for the control of tuberculosis that is based upon sound experience, and that is projected for a sufficiently long time so that the city or town does not burden itself unduly.

The Framingham Demonstration has shown that for an expenditure of \$2.00 to \$2.50 per capita per annum from official and non-official sources tuberculosis can be placed under reasonable control. The task of the tuberculosis executive then becomes one of selling to the community a definite program, at a definite cost, spread over a fairly definite term of years. If, as Miss Whitney, statistician of the National Tuberculosis

Association has shown,¹ two and one-half years can be added to the average expectation of life resulting in a saving of \$100 per year per person, the problem might be stated thus: Given a city of 100,000 population, to rid the population of tuberculosis would mean a saving of 250,000 years of life ($100,000 \times 2\frac{1}{2}$ years), or of \$25,000,000 ($250,000 \times \100). At \$2.50 per year per person for a period of ten years the cost of an adequate tuberculosis program would be \$250,000 per year or a total of \$2,500,000. Even if tuberculosis were not entirely eliminated in ten years, the net result in saving of life and money to the community would be enormous, especially since the by-products of the tuberculosis campaign would result in a considerable additional saving of life and money.

The program, then, that the tuberculosis worker must sell, is based on a sound economic principle.

SELECTED REFERENCES

- FRAMINGHAM MONOGRAPHS. Framingham, Mass., Framingham Community Health and Tuberculosis Demonstration of the National Tuberculosis Association, 1918-1922. 9 vols.
- TUBERCULOSIS LEAGUE OF PITTSBURGH. Cost and Suggestions for Local Health Work 1920. 8 p.

ARTICLES

- ARMSTRONG, D. B. Community machinery for the discovery of tuberculosis. National Tuberculosis Association. Transactions, v. 15, p. 214-20, 1919.
- FOLKS, HOMER. After-care of local committees. A discussion of the functions and problems of local committees on the prevention of tuberculosis. Journal of the Outdoor Life, 6:198-201, July, 1909.
- FOLKS, HOMER. Tuberculosis associations and relief agencies. National Tuberculosis Association. Transactions, v. 13, p. 414-20, 1917.
- JACOBS, P. P. Community aspects of the tuberculosis problem. Public Health Nurse, 13: 275-78, 502-505, 649-52, June, October, December, 1921.
- KRAUSE, A. K. The elements of an adequate tuberculosis program. Journal of the Outdoor Life, 19: 262-65, August, 1922.

¹ On the Costs of Tuberculosis, Louis I. Dublin and Jessamine S. Whitney, American Statistical Association Quarterly, December, 1920.

- KRAUSE, A. K. The larger field of tuberculosis. *Journal of the Outdoor Life*, 17: 2-8, 22, January 1920.
- MILLER, W. McN. Comprehensive coöperation in the tuberculosis program. *National Tuberculosis Association, Transactions*, v. 17, p. 439-46, 1921.
- STRAWSON, A. J. Budget and program. *National Tuberculosis Association. Transactions*, v. 13, p. 458-61, 1917.
- UFFORD, W. S. Relief in the home, by state, by municipalities, by private agencies. *National Tuberculosis Association. Transactions*, v. 15, p. 405-11, 1919.

CHAPTER XXI

RURAL PROGRAMS

While the general principles of a tuberculosis program as outlined in the preceding chapter will apply to a rural district as well as to a large city, there are certain peculiarities of rural territory that require special consideration in the development of programs of tuberculosis and health work. According to the 1920 census, 51,396,144 people in continental United States live in rural territory and 54,314,476 people live in urban territory. The percentage of rural population in the different states ranges from 86.6 in Mississippi to 2.5 in Rhode Island and 5.2 in Massachusetts. From these figures it will be seen that the tuberculosis program, to be effective, must extend itself outside of the urban areas into the more sparsely settled districts in every state in the Union. The need for such extension is emphasized by the increasing stress which is being laid upon rural country life by religious, political, social, educational, and various other agencies throughout the United States.

The farm was for years an eddy in the rapidly moving current of social and political development which naturally flowed from and about the urban districts of the country. Today, however, the farmer is demanding all that fifty years of social work have given to his city neighbor, just as he is demanding the comforts and even the luxuries of the town and urban district. The health appeal is penetrating rapidly to the remotest and most sparsely settled districts of the country. The tuberculosis program, therefore, must be ready to meet the peculiar specialized problems that these rural areas present.

THE UNIT

In considering a tuberculosis program that will best cover the rural district, it is essential to bear in mind the unit for the

development of a program. Shall it be the city, the county, the state, the district, the village or the town? The consensus of experience during the last ten years in this country seems to favor the county, or in some states a combination of counties, as the unit for a local program. In certain eastern states, particularly where there are large cities, the county program has been developed sometimes to include the city and sometimes independently of the city. In a few of the western states it has been necessary to adopt a district program, combining two or more counties. In certain states, like Wyoming, it is almost impossible to develop a comprehensive local program because of the sparsity of population; and the centralized state program seems to be the best plan. Wisconsin has strongly adhered to the central state program as being the most desirable plan, but has nevertheless developed and encouraged local organizations.

Speaking generally, the more local the unit the better. The control of tuberculosis does require state and even federal coöperation, but it is essentially a local problem. The city, town, county, or combination of these will of necessity have to contribute most in the solution of its own health problems.

Within the territory of a given state it will be necessary in most cases to vary the unit. In some sections of the state a city program may be worked out; in others, a county program; in still others, a district program combining two or more counties. The chief factor which should determine the unit of a program is the amount of money available.

District units

If the town or city has not enough money, it may be that the county should be included, in order to provide enough money to secure the full-time services of an executive. Unless the unit can provide such full-time services it ought to be enlarged or not organized at all. A local program worthy of the name requires money and continuous service. Local pride should be encouraged and stimulated. Where, however, a local community can raise only a few hundred dollars, the

state executive may well question whether he should not combine that small sum with other neighboring small sums until he gets enough to do a full-time real job. This may not stir local pride so much, but it will in the long run give everyone concerned the most for his money.

It is a mistake to develop a district unit where a harmonious program cannot be worked out. In a group of counties, for example, where two large cities will compete with each other, or where there will be competition between one county and another, organization ought not be encouraged until harmony can be secured. The district should be harmonious enough so that a common program can be worked out to cover the entire territory.

This district should not be too large to provide for adequate supervision of the entire territory. The value of a district program with a full-time executive lies in the fact that the executive can apply the program intensively to every part of the territory under his jurisdiction.

LACK OF FACILITIES

In the development of a program for a rural or relatively rural area one must bear in mind the fact that there is usually a lack of those diversified agencies that are found in the large city. In the country districts there are usually no charity organization societies or organized relief agencies. Frequently there is no adequate health machinery, although the increasing number of full-time county health officers is meeting this deficiency. The board of health may be a political body, and the health officer may be an undertaker, a veterinarian, or a physician who gives an hour or two a week to his work. Organized community life is lacking. The few fraternal, labor and social organizations are weak and limited as to membership and support. The grange, farm bureau or farmer's institute is usually the most powerful community organization. The school system may be inadequate. Even where a consolidated school system with a reasonably high standard of teaching is provided, there is very frequently a lack of proper

school hygiene. These are but a few ways in which the country district is handicapped through the absence of those facilities that are ready-made and easily coördinated in the city's tuberculosis program.

LACK OF FUNDS

There is, furthermore, a lack of funds in rural communities. This is sometimes due to the inherent poverty of the community and sometimes to the unwillingness of the farmer to contribute to anything that does not appeal to him as of immediate financial value. It has been found from experience that wherever the rural districts can be made to see the value of a tuberculosis program by proper education, they will support it, and usually more generously than do the cities. The per capita sale of Christmas seals, for instance, in well organized country districts is almost always considerably in excess of the sale in city districts.

THE GOVERNING BODIES

The small town and urban governing bodies present another handicap that is of serious importance in developing a rural program. The county boards in most states of the United States are of a considerably lower calibre than the city boards. There are distinct exceptions to this rule, but they are not numerous. In many states and sections of the United States the entire county government is centered in the hands of one or two officials. In others it is placed in the hands of boards of such large numbers that they are unwieldy and difficult to bring into line for a purpose such as a tuberculosis program. In the small towns and villages the usual lack of strong local government is a serious handicap in the enforcement of health regulations and the development of official support.

EMPHASIS

In consideration of these facts the emphasis of a local program in a rural district should be primarily upon the following features:

1. Education

As in the city program, education must be continuous, intensive and extensive. It must be adapted particularly to the conditions of the rural community. It must appeal to the farmer. Many tuberculosis workers make a mistake in using the same educational material for a rural district that they use for a city. The farmer is appealed to by things that he is most interested in. Open windows, healthy children, pure milk, care of the sick, symptoms and danger signs,—these are but a few lines of education that appeal. Even here the illustrative material, whether of statistics or human interest cases, should come from the country so far as possible.

2. Nursing

The nurse has been found to be the most valuable feature of a rural program. Hundreds of rural communities today have health programs as a result of the activities of pioneer nurses. The nursing program of the rural district is essentially a general one. The nurse, as has been pointed out before, in some counties of the western and southern states is practically the only representative of organized community social work in the entire county. Not infrequently the nurse may have to be also the executive secretary.

3. Bovine tuberculosis

The bovine tuberculosis problem presents to the farmer a real economic and financial question. In those states where the tuberculin test is compulsory and the slaughter of infected cattle is required, the tuberculosis association should carry on a carefully planned educational program to support the agricultural authorities in the extermination of bovine tuberculosis. The control of the milk supply in rural districts is usually much less efficient than in city districts, although most of the milk for the cities comes from the country. Most farmers will respond to an appeal to control bovine tuberculosis in their dairy herds, if they can be made to see and feel that

such measures have sound economic as well as good health value.

4. General sanitation

The rural tuberculosis association must also work for general sanitation and for the improvement of sanitary facilities in the home. The installation of bathtubs, modern privies, good wells, proper heating and proper ventilating facilities are all a part of that program for improving health, which must be adapted to the particular needs of the farmer and small town dweller.

5. Work with children

The Modern Health Crusade and the general work with children present one of the most hopeful aspects of the rural program. While the fathers and mothers in the agricultural districts are sometimes unprogressive and not willing to adopt new ideas, the boys and girls can easily be taught. Thus will be developed a constituency for the next generation that will tell powerfully in the control of tuberculosis and the improvement of public health. The correction of physical defects of children following the discovery of these defects by the school authorities, is again a problem that challenges the best resources of the tuberculosis association.

6. Hospital and sanatorium care

Hospital and sanatorium care in the country districts usually comprehends more than care merely for the tuberculous patient. It often includes the securing of facilities for general hospital medical and surgical care as well. Millions of people in this country have no facilities whatever for general hospital care. While the tuberculosis program is primarily interested in the securing of tuberculosis hospitals it must concern itself also with those broader aspects of community health and disease that are considered in general hospitals.

7. Home economics

The rural program for tuberculosis should stress home economics as a part of its campaign. Teaching the farmer's wife how to care for her house, how to cook proper meals, and how to use the excellent food supply which she has readily available is a very difficult problem of education. It is one, however, that will pay big dividends in the building of health both in adults and children. Too little nutritional work has been done in rural districts. Similarly, efforts directed toward educating the rural housewife and family in modern methods of household management and practice in regard to clothing, bathing, house-furnishings, reading, and other lines, all reflect themselves in the health and happiness of the community. Tuberculosis associations may well coöperate in this direction with the agencies of the Department of Agriculture and other state and government agencies working in rural sections.

8. Recreation

The religious and other organizations at work in the country districts generally concede that many, if not most, of the acute problems of the farm today are created by lack of recreational facilities. These agencies are looking primarily upon the moral and economic problems produced by lack of such facilities. The tuberculosis workers should supplement their plea for increased recreational facilities in the country districts on the ground of better health. The need for supervised, carefully planned, recreational facilities on a community basis in the rural districts is clearly apparent. The development of such recreational facilities will go a long way toward improving the health of the rural worker, and toward promoting a more happy contented farm life.

9. County health officers

Finally, the program of the tuberculosis association should stress the need for full-time county health officers. In this connection the tuberculosis organization will work with the

United States Public Health Service, the Rockefeller Foundation, and all of these other agencies, state and national, that are trying to develop a higher degree of public health supervision in the country districts. The most powerful single agency for the control of tuberculosis in any county is a full-time, trained, county health officer with a properly equipped office and enough money to do his work. Much of the program of the county or district tuberculosis association should be bent to secure such an official.

DANGERS OF OVER-EMPHASIS

Most tuberculosis programs, especially those in the rural states or parts of states, have developed along lines of least resistance without very much thought and vision as to the future progression of the work. They have been opportunistic in their inception and growth. For example, a nurse has seemed to be needed, as no doubt she was, and the county has been spurred to employ her. Or the hospital or sanatorium seemed for the moment the greatest need, and a referendum campaign has secured the consent of the voters to build one, even though in some instances an insufficient sum was provided for the purpose. Or, to cite another typical case, the Modern Health Crusade has been used as the entering wedge and the whole program has been concentrated on this effort.

No one will minimize the value of the nurse, the hospital, or the Modern Health Crusade in a tuberculosis program. They are absolutely vital to its success. But when the program becomes predominantly a nursing one, there is danger of a one-sided development due to over-emphasis. Or, when the institutional care of cases appeals as the outstanding or only feature of the program, one wonders what the results will be, if the other equally vital features are neglected.

A one-sided program will not meet the needs of any rural or urban community. A well-rounded, comprehensive and progressive development, as pointed out in the preceding chapter, should be projected and carefully worked out.

SUMMARY

As will be seen from the foregoing, the emphasis of the rural program is not nearly as definitely on tuberculosis as it is in the city program. The rural program emphasizes health in its broadest possible aspects. It emphasizes the extension of facilities for better education, better recreation, better health, in fact for better life in general for the farmer.

SELECTED REFERENCES

- Kansas State Tuberculosis Association. Tuberculosis Section. Organizing your Own Public Health Association. Folder.
- Virginia Tuberculosis Association. The County Organization. Richmond, Va. 1922. 4 p.

ARTICLES

- The broadening policy of the tuberculosis campaign. Illinois Arrow (Illinois Tuberculosis Association) 5: 6-7, June, 1922.
- FRANK, J. A. Making successful war on tuberculosis. Ohio's Health (State Dept. of Health) 13: 115-19, September-October, 1922.
- FREEMAN, M. E. Public health work in Onondaga county. Health News (New York State Dept. of Health) n. s., 15: 232-36, September, 1920.
- GARVIN, A. H. Control of rural tuberculosis. Public Health, Michigan Department of Health, n. s., 8: 398-403, October, 1920.
- KLOTZ, A. C. An experiment in organization of rural tuberculosis work in Albemarle County, Virginia. National Tuberculosis Association. Transactions, v. 17, p. 447-52, 1921.
- Local programs. Bulletin, National Tuberculosis Association, 6: 2, 12, September; 12, October, 12, November, 1920.
- With the assistance of A. J. Strawson the Iowa tuberculosis association outlines programs costing from \$25.00 to \$1500.
- Seeking out tuberculosis in both city and county. Crusader (Wisconsin anti-tuberculosis association) 13: 5, June, 1922.

CHAPTER XXII

STATE PROGRAMS

A state program for tuberculosis work must be conceived on the broadest possible lines. The principal danger in the development of a state program is narrowness. The state tuberculosis association, which is usually entrusted with the development of a state program, must see it in all of its varied ramifications, official and non-official, local and state-wide, national, state, and local.

In order to give to the state and local executives a comprehension of such a state program, an effort is made in this chapter to group under convenient heads all of the various agencies and functions that will enter into it. The chapter is necessarily an outline and, to a certain extent, intentionally so.

GROUPING OF MATERIAL

One might group the material for a state-wide program in a number of different ways, any one of which would be arbitrary. The grouping chosen here is frankly an arbitrary one. It is designed, however, to give to the state tuberculosis executive in charge of the non-official tuberculosis association or to the local tuberculosis executive a basis for evaluating what tuberculosis work is being done in the state and how it is being done. A mere list of all the tuberculosis activities is not sufficient to give a proper basis for evaluation. There must go with such a list an effort to group the agencies and their activities under certain headings or classifications, in order that the standards of work in each may be compared and properly rated.

With this thought in mind the material presented in this chapter under an outline for a state program is grouped roughly under these three heads:¹

¹ The author is indebted to Frederick D. Hopkins, Administrative Secretary of the National Tuberculosis Association, for assistance in working out the outline presented in this chapter.

- a. The prevention and control of tuberculous infection.
- b. The control and treatment of tuberculous disease.
- c. The building of resistance to tuberculosis.

There is an unavoidable and to some extent necessary repetition of agencies and functions under these three heads. The same one, for instance education, may appear in its various aspects under all three of them. The grouping under heads is, furthermore, arbitrary. It follows somewhat after suggestions offered by Armstrong and Krause. It should, however, prove suggestive to the state and local tuberculosis worker.

Under each of the three heads will be grouped those activities and functions that logically fall under that head. The whole outline gives a reasonably complete state program for the control of tuberculosis, incorporating both the official and the non-official agencies. This chapter is not merely an outline of the work and program of a state tuberculosis association; it aims to include in its scope all of the state-wide agencies that have a bearing upon any of the three main subject heads.

PREVENTION AND CONTROL OF TUBERCULOUS INFECTION

1. State department of health

In the control of tuberculous infection the state department of health has the most immediate and direct function of any state-wide agency. In order to determine whether the state department of health is adequately fulfilling its function in this regard, the tuberculosis executive may analyze it under two heads; (a) organization, and (b) functions.

Taking up the heading of organization, what is the actual personnel of the department and how is it staffed? Is there a board, an advisory council, a commissioner, a series of bureaus or divisions, a bureau of tuberculosis, etc.? What are the appropriations for each bureau? Are they adequate or inadequate? This applies particularly to the tuberculosis bureau and to the educational bureau. What about the laboratory? Is it equipped to make routine diagnoses? Is it

equipped for additional research? What about legislation? Are there adequate laws for reporting of tuberculosis, for prevention of spitting, for the establishment of institutions? Is more legislation needed to reorganize or expand the board or department or are more funds needed to enforce existing legislation? These are pertinent questions that go under the heading of organization.

Taking up the matter of functions, the following questions arise:

a. What is the number of living cases reported—do they approach even approximately the Framingham figures, eight to ten active cases for every annual death, or one per cent of the population with active tuberculosis?

b. What about the development of machinery for the discovery of tuberculosis? Are there consultants? Is the law regarding reporting of cases enforced? What about clinics under the state department of health or coöperation with private and local clinics?

c. Is the anti-spitting law enforced, or does the state board of health see to it that the local boards enforce it?

d. What of the supervision of local health departments? Is any effort made in this direction to control tuberculous infection?

e. Is the general education of the department of health directed along the lines of prevention of infection from tuberculosis?

f. Are public assembly, meeting places, and conveyances inspected to see to it that sources of infection from tuberculosis are eliminated or reduced to the lowest possible degree of danger?

g. Is there machinery for the segregation and detention of incorrigible cases of tuberculosis and is there an institution available for this purpose? If not, why is not such provision made?

h. What about the institutional facilities of the state? Has the department of health been active in securing adequate care for advanced, incipient, exposed and other types of cases?

i. Is the milk supply of the state supervised by the state department of health, especially where milk comes in from neighboring states? What is the nature of the supervision? Is the tuberculin test in vogue and is it enforced? Is there a state law regarding pasteurization? Is the accredited herd plan approved and promoted? Does the department work with the United States Department of Agriculture in this direction?

j. Is statistical information concerning the spread of tuberculosis, the number of cases reported and the character and stage of the cases, available, and is the statistical bureau adequately financed and properly supported?

k. What of research? Is the department contributing to general research in the control of tuberculosis? Is it making its own work available for the medical profession, and is it encouraging research in the prevention of tuberculous infection?

These are some of the questions under the heading of functions that the tuberculosis executive may well ask of the state department of health when he considers that agency in relation to the prevention and control of infection.

2. Hospital facilities

Hospital facilities comprise the second group of agencies to be considered under the heading of prevention and control of tuberculous infection. There are those who question the value of hospital care as a step towards the prevention of infection. There are others like Newsholme who lay the greatest stress upon this measure. It seems reasonable to expect that the segregation of any focus of infection for a certain length of time removes, particularly from the young children in the home, a dangerous source of the spread of tuberculosis infection.

With this consideration in mind the state tuberculosis executive may raise a number of questions under the heading of hospital facilities. First he will ascertain the number of hospitals and their capacity severally and jointly. He will determine whether the capacity as a whole or in individual

communities is adequate or not. He will inquire regarding the number of general hospitals making provision for advanced cases and will endeavor to ascertain the reasons why more of these institutions are not caring for tuberculosis. The number of advanced cases treated in county hospitals, as compared with the number of early cases, is a source of inquiry when considering the control of infection. The number of deaths in tuberculosis hospitals may be commended rather than condemned. The more advanced cases that die in the hospital, the more danger of tuberculous infection is removed in the home and the community. He will ask about the number of hospitals rated A, B and C, according to the American Sanatorium Association standards. These are some of the principal questions that have a bearing with reference to hospital facilities in considering the control of tuberculous infection.

3. Clinic facilities

How many clinics are there in the state that treat tuberculosis and what facilities are there for treatment? That is, what is the staff and what is the equipment of the various clinics? How many cases, new and old, were treated during the last year? How many cases were admitted to hospitals from clinics how many to sanatoria, how many to preventoria? What is the general status with regard to the stage of cases being discovered by clinics? What of traveling clinics? Are there any, and if so how are they functioning? These questions will suggest others that must be answered in order to evaluate properly the place of the clinic and dispensary in the control of tuberculous infection.

4. Nurses and home care

How many special tuberculosis or general public health nurses, working out from tuberculosis clinics and otherwise, are there in the state? It is astonishing to find how few tuberculosis executives can answer this question. It would seem to be a relatively easy question to answer and one that is im-

portant in evaluating the nurse as a tuberculosis agency in the community. How many public health nurses are there doing tuberculosis work of any kind and what are they doing? How many tuberculous families are under the care of nurses? How many patients and non-patients in those families? Is there a state supervising nurse and what are the facilities for supervision? Is tuberculosis being given special consideration by the supervising agencies? Are the nurses finding cases? Are they looking after the infected children?

5. Industrial work

Is medical examination of employes generally practiced in the industries throughout the state? How many industries of a thousand employes or over have it in force? What facilities are there for smaller industries? What is being done to promote periodic medical examination? What happens in the industries when advanced or open cases are discovered? Are they taken care of by the industry? Is tuberculosis a compensable disease under the state compensation law, and are efforts being made to determine the industrial hazards of this disease? What about infection superinduced by working conditions? Is education on this subject being carried on, and is there sanitary supervision to see that infection is prevented? What is the relationship between the institutional facilities of the city, county and state and the industries of the state? Is there direct effort being made to couple these institutional facilities and the industrial organizations? Is there coöperation between the working men and employers in the control of tuberculosis? Many questions like these will arise when one stops to find out the place of industrial work in a state tuberculosis program.

6. Organization

The state association and its organization should be a first concern. What about its standards, its staff, its budget? Are they adequate? Are they meeting the needs? How many local associations are there? How many with paid

executives? Do they all have budgets worked out and approved in advance of expenditure? Do they all have working programs, and are they working? How many paid workers in the local associations? Is the personnel of the highest possible standard? What efforts are being made to improve the quality of personnel? What about the fund-raising organization? Is the Christmas seal sale covering the ground? Is the unorganized territory being developed by the sale? How does the state compare with other states in the seal sale? What about the relief and other non-official agencies doing work in the prevention of infection? Is there a definite coördination of these with the tuberculosis program? Is the state association stimulating research for the prevention of infection? A score of questions of this character will arise in the mind of the state executive when he comes to analyze his own state and local organizations as a part of a state-wide program for the control of tuberculous infection.

7. Education

The official and non-official activities in the educational program should be closely coördinated. This is taken for granted but oftentimes it is not the case. There should be no overlapping, but there should be a close relationship, the dovetailing of one program into the other. Under the head of state educational work one might consider the Modern Health Crusade, exhibits, newspaper publicity, motion pictures, posters and printed matter, lectures and talks, special stunts, pageants, etc. Are all of these carried on with the most improved technique and are they getting out of the work the most possible for the money invested? Is the educational program as a whole continuous, extensive in scope and subject matter, and intensive in direction at certain groups or goals?

8. Other official agencies

There are other official agencies that have to do with the control of infection: the department of agriculture in the

matter of bovine tuberculosis; the department of education in relation to school hygiene and health education; and even the administrative and judicial branches of the government in the enforcement of law. Are these other official agencies being utilized in the tuberculosis program as they should be?

CONTROL AND TREATMENT OF TUBERCULOUS DISEASE

Under this heading, as has been pointed out above, there will of necessity be a certain amount of duplication. Some of the same agencies will function in relationship to this and the other two heads.

1. State department of health

In the control and treatment of tuberculosis the state department of health has certain very definite functions such as the following:

a. Sanatorium supervision and management. In some states the state department controls institutions and operates them. In others it supervises and inspects them. In all cases it should see to it that the highest possible standards are maintained.

b. Consultation service and other facilities for early diagnosis may be provided by the state department of health. Such facilities make for the earliest diagnosis and best treatment of tuberculous disease.

c. The state department of health will furnish statistical information as to the standards of hospitals, the after-care, follow-up, costs of treatment, etc. It should be the central agency to collect and distribute information concerning institutions and their activities. Education on treatment and care is a part of the general function of the state department of health. Similarly, research with reference to this particular subject is of importance and may well form a part of a state health department's program.

2. State tuberculosis commissions and other state agencies

In some states a special tuberculosis commission takes charge of institutional facilities and manages and directs sanatoria and hospitals. In some states the bureau of tuberculosis of the state department of health has this function. In such cases some of the functions that would normally belong to a state department of health may be transferred to this other state body. The state commission may operate and supervise clinics, nurses and other facilities for treatment. In a number of states there are prisons and hospitals for the insane that make provision for tuberculous inmates. A proper state program of treatment will see that these unfortunate persons are given the best possible care. The state board of health, a state commission or other agencies will endeavor to see that the American Sanatorium Association's standards are maintained at the highest possible degree of efficiency.

3. County, municipal and district official agencies

The local sanatorium and the county or municipal hospital come under this general heading. Their proper supervision and management is a part of a state program. The state executive must see that these local official institutions are operated with the highest standards and that their treatment facilities are of the best. Similarly, the clinics, nurses and other facilities for treatment must be considered not in relation to a particular community, but in relation to one another so that there will be a gradual development of higher technique in all of them. The function of the state tuberculosis association and the state department of health is not one of operating local institutions. It is rather one of seeing that every dollar invested by city, county or district produces the biggest possible health value. The state association will also see to it that these local official agencies carry on educational work in treatment and cure and that, throughout, research is encouraged and developed. In all cases where there are sanatoria and hospitals, the American Sanatorium Association standards will be maintained.

4. Private sanatoria

Private sanatoria have a distinct part in a state-wide tuberculosis program. A few such institutions are of a semi-philanthropic character and are obviously community agencies. Even the commercial and strictly private sanatoria, however, play a very definite part in any program. The state executive will naturally inquire whether the institutions serve his state or serve a wider constituency. In the latter case, what happens to the people who take treatment at these private sanatoria and are later discharged as arrested or improved? Is there an increase of indigent consumptives due to the presence of such sanatoria? Can this increase be regulated or controlled? The question relates itself not only to treatment, but to the prevention of infection. Again the executive may well ask if the private sanatoria which are operated for commercial purposes are encouraging research, and whether they are utilizing part of the funds derived from tuberculosis treatment to develop better methods of treatment and prevention of tuberculosis. If not, he should endeavor to encourage such activities.

5. Open-air schools

Open-air schools for tuberculous and physically sub-standard children, whether public or private, fall under the heading of treatment. The open-air schools for sub-standard children may be preventive in the main, but they are also institutions for treatment and must be considered under this heading. Considered from a state-wide angle, the number of institutions and the number of children cared for is vital. Too few executives know the number of such agencies in their territory. No evaluation of a state-wide program for the prevention and treatment of tuberculosis can be made without a full knowledge of such open-air schools and classes, their number, kinds, attendance, results, construction, equipment and general standards.

6. Clinics

What special diagnostic facilities, such as the x-ray, laboratory test, consultants, medical staff, etc., are available through the clinics? Is the emphasis being laid on case-finding in these agencies and is the diagnostic function being stressed as it properly should be? In the category of treatment agencies the clinic stands primarily for diagnosis. In a state program an effort should be made to raise the standard of all clinics in this respect.

7. Nurses and home care

The nurse is not only an agency in the community for the control of infection and for the general education of the public; she is also an agency for home treatment. The state executive may ask what the nurse is doing in the way of actual treatment. Is she providing better comforts in the home? Is she securing window tents, building sleeping porches and promoting better home care? What about relief for tuberculous patients? Is the nurse seeing to it that adequate medical supervision is provided for every case that needs it, whether bedridden or otherwise? Are there social service facilities extending from the tuberculosis hospitals into the homes of the patients and back again to the patient himself? How many units of home treatment under the standardized plan of the American Sanatorium Association and the National Tuberculosis Association have been adopted and how are they working? This plan, linking as it does the home with the sanatorium and hospital, greatly extends the usefulness of the latter institutions.

8. Industrial work

Under the category of a program for treatment the industrial work seeks first to discover cases and to look after them while they are in institutions, and to follow them up after they have been discharged. The industrial program should not only pre-

vent infection, but it should provide treatment and after-care of every case of tuberculosis discovered. It should also seek definitely to rehabilitate the tuberculous worker for industry, either at his old job or a new one.

9. Organization

What effort is being made by the state and local tuberculosis associations to encourage the medical profession in the treatment of early cases? What of medical consultants? What of medical study clubs or papers on tuberculosis at stated medical meetings? What of the distribution of medical literature, such as the American Review of Tuberculosis, or standard medical works on this subject? Are the general practitioners being encouraged to study tuberculosis? What effort is being made to get the young and more promising physicians to go to post-graduate schools of tuberculosis? Is any effort being made to coördinate clinical and teaching facilities for the benefit of medical students? Organization of facilities along this line is highly desirable and necessary in the treatment of tuberculosis.

10. Education

Are the tuberculosis agencies, official and non-official, throughout the state stressing continuously the fact that tuberculosis can be cured? In spite of education extending over a period of fifteen or twenty years there are still many people who believe that tuberculosis cannot be cured. Are the local and state agencies making the most of the "missionaries" who have been educated and cured at local sanatoria? What about bringing together all patients at reunions and capitalizing the educational value of such gatherings? Education on prevention is highly desirable, but education on treatment and cure must not be lost sight of.

BUILDING RESISTANCE TO TUBERCULOSIS

Dr. Allen K. Krause in an address entitled "The Larger Field of Tuberculosis,"² says:

The sum and substance of our task is that we must carry tuberculosis to the people,—to all the people. And we should remember in so doing that we shall be laying before the public practically the entire field of public health. There can be little doubt that tuberculosis is or should be the hub and center of the whole public health movement. There is more than presumption of plausibility that it should be made the pivot on which almost all good health measures turn. Whatever makes for better conditions as regards tuberculosis infection and disease tends with a very few exceptions to reduce the incidence or deleterious effects of all other diseases.

Viewed from this broad platform, the state association should analyze its machinery for building resistance to tuberculosis.

1. Education

The educational work of the state and local agencies, whether official or non-official, should lay emphasis on health habits and personal hygiene as well as upon the broader aspects of community hygiene. In accordance with the platform for building resistance laid down by Doctor Krause, education on tuberculosis should emphasize that all of those things that enter into our life and build up health prevent tuberculosis, and all of those things, on the contrary, that break down health lead to tuberculosis. It is a health education program in the broadest sense. From the standpoint of the state executive, it is desirable to see to it that all of the agencies in the state that are teaching health have clearly in mind the significance of their teaching in relationship to tuberculosis. This applies both to the official and non-official agencies. For instance, why should any agencies teach child health without having clearly in mind, even if it is not emphatically stressed, the significance of such teaching in relation to building resistance to tuberculosis?

² Journal of the Outdoor Life, January, 1920.

2. Industrial work

Viewed again from Doctor Krause's platform, better working conditions in the way of better wages, shorter hours, better living conditions (including better housing at moderate rentals), and better recreational facilities (including a supervision and direction of leisure time), all make inevitably for better health and, therefore, lead to the building of resistance to tuberculosis.

The state program for the control of tuberculosis should work with official and non-official agencies toward this end. Anything that the state-wide program for tuberculosis can do, therefore, that improves the industrial relations of employer and employes and that makes work more wholesome and normal will have a bearing upon the control of tuberculosis.

3. School hygiene

Under the heading of school hygiene there are a number of functions and agencies that might be grouped as having a distinct bearing upon this problem of building resistance against tuberculosis. Open-air schools and open window rooms for normal children may be instanced as one. Better ventilation and better light in school rooms is another step. Improvement in the medical and nursing provision is another. Health education as an integral and vital part of the curriculum is still another. These activities have a bearing upon tuberculosis in that they build resistance through the improvement of general health.

4. Medical facilities

In evaluating a state-wide program for the building of resistance an inventory of the medical facilities available is absolutely necessary. For example, are there facilities provided for correction of nutritional defects? What of posture clinics and corrective exercise facilities? Are dental clinics available? Is provision made for the removal of physical defects, such as tonsils and adenoids, or the more serious operative defects? What of special relief to make such facilities

available? Is the medical profession coöperating in this connection? What about medical attention for the sick in remote communities? These questions must be viewed and answered, not from the local but from a state-wide standpoint.

5. *Preventorium*

Is the preventorium being recognized as a special agency for the care of children who have been definitely exposed to tuberculosis and what of its place in the state-wide program? How many are there? What is their capacity? How many cases are there of children who have been exposed to tuberculosis and what is being done for them? The number of preventoria as contrasted with the number of children available for admission to them will usually be found to be pitifully small.

6. *Coördination*

Finally, under the heading of building resistance the state executive should consider the facilities available for coördination with a definite tuberculosis program. With a basis as broad as Krause lays down it is not too much to expect that the tuberculosis association will definitely take the initiative in bringing into close and vital relationship to itself all of the official and non-official agencies that have to do with any phase of health improvement that has a bearing upon tuberculosis. In this connection Krause says,³

A community of no-tuberculosis at once presupposes a community of cleanliness; of temperance and sobriety; of adequate light, space and air, both within and without its habitations, offices and factories; of labor enough for all; of economic and industrial overstrain for none; of opportunities and facilities for the rational employment of leisure; of an intelligent and enlightened medical profession to correct the disabilities of man; of a strong and sympathetic citizenry with an advanced point of view.

Here is a program that challenges all of the coöperative ability of a state tuberculosis association and demands working

³ *Ubi supra.*

with practically every agency in the state that aims to better human relations.

SUMMARY

If after a study of the outline of a state program, the tuberculosis worker will take his own state and endeavor to evaluate his work along the lines suggested here, he will undoubtedly find omissions and errors in program that will demand careful consideration.

A state program of tuberculosis work, as the foregoing outline has tried to show, must be broad, standard-making, standard-enforcing, and educational. It must, furthermore, fill in the gap between the organized and unorganized territory and must unite all of the agencies and facilities available to gain the goal of better health for all.

SELECTED REFERENCES

- COBBETT, L. *The Causes of Tuberculosis*. Cambridge, University Press. 707 p.
- JACOBS, P. P. *A State Program for the Massachusetts Anti-tuberculosis League*. Massachusetts Tuberculosis League. Fifth annual report, 1918-1919. p. 15-21.
- KRAUSE, A. K. *Environment and Resistance in Tuberculosis*. Baltimore, Williams & Wilkins, 1923.
- MILLER, W. McN. *Comprehensive Coöperation in the Tuberculosis Program*. National Tuberculosis Association. Transactions, v. 17, p. 439-46, 1921.
- THURBER, W. D. *Coördination in Voluntary Health Work*. State Voluntary Health Coördination. National Conference of Social Work. Proceedings, 49th, 122. p. 203-206.
- TATE, E. L. M. *The Duties and Opportunities of the State Tuberculosis Association*. National Tuberculosis Association. Transactions, v. 11, p. 302-306, 1915.

CHAPTER XXIII

RELATION OF STATE AND LOCAL ASSOCIATIONS

The two preceding chapters have considered tuberculosis programs without particular reference to the relationship of state and local tuberculosis associations. It will be necessary in this and the next chapter to consider programs from the point of view of the relations between local, state and the national tuberculosis associations.

In the development of community tuberculosis programs, the local tuberculosis association is usually and should be the leader. It is the organization called upon to take the initiative. The entire program is developed generally at its direction or in close coöperation with it. The state association maintains a similar position in the state as a whole and in addition assumes a supervisory and general advisory relationship to the local association.

Upon the relations that exist between the state and local tuberculosis associations, therefore, depends practically the entire success of the tuberculosis work. A harmonious relationship based upon mutual understanding will make for progress. An independent, non-coöperative relationship will surely delay progress. This has been the experience everywhere throughout the United States.

What, then, may a local association expect from a state association, and what in turn may a state association expect from a local association? It is obvious that each has claims upon the other and that each may expect from the other certain services.

FROM STATE TO LOCAL

Taking up first what a local association may expect from a state association, we may group these services roughly under the following heads:

1. Organization

A local association may expect that the state association shall bring into existence and develop the machinery that will make possible a program for tuberculosis work in the local community. Some local associations have been formed without a state association but they are in the minority. Most of the strong local organizations today owe their existence to a state association. This is as it should be. It is, furthermore, the function of the state to assist the local association in the intensive organization of its territory.

2. Program

Having brought the local organization into existence, the state association owes it still further service; that of laying down for it a program based upon the broadest possible experience of the parent association. The program should of course be adapted to the particular local needs of the association.

3. Money

It is equally important that the state association give to the local association some visible means for financing its program. This does not necessarily mean a subsidy from the state treasury. It more than likely means a method for financing, usually the Christmas seal sale. In some instances it has meant or may mean the giving of actual money in the form of subsidy. The reader will here recall the axiom laid down previously, that an association without money or program is worse than useless.

4. Standards

A local association has a right to expect that the state association will also give to it standards for the development of its local program. The state association is in a peculiarly advantageous position to get experience regarding standards from all of the local agencies in its territory and from the country as a whole. It may bring to bear upon the local problems

the best achievement of the best organizations in any particular field. Through its efforts at standardization it will aim to improve the quality of the local program and to minimize the waste of money.

5. Legislation

State legislation can best be secured by a state body, but all such laws are primarily of local use. It is the function of the state association to get the legislation, asking for support from the local, but taking the initiative as a state-wide agency. If every local association attempted to secure legislation independently of every one else, the confusion in most legislatures would destroy the chances of getting any enactment.

6. Education

Tuberculosis is no respecter of corporation boundaries. The tuberculosis educational program may be intensified within the limits of the local association's territory but it must extend beyond and around these limits. It must fill in the vacant spaces where there are no local associations. It must cover all the territory in an extensive and, if necessary, in an intensive way.

7. Stimulation

The state association must constantly follow up the local association, stimulating it to new ideas and new programs. When a few years ago, for example, occupational therapy came into vogue the state associations took the initiative in bringing to the local associations the need for incorporating this method into their local programs. Similarly, nutritional work, open-air schools, sanatoria, nurses, clinics, and practically every other method of tuberculosis work has been stimulated locally through the state association.

8. Expert service

The state association must furnish expert service in those specialized lines where the local organization cannot secure the highest degree of assistance. It is not to be expected, for instance, that every local association will have on its staff a tuberculosis specialist of national reputation, or an institutional expert of wide repute. The state association can furnish these expert services for consultation clinics, for special advice on institutional construction, for development of the educational program, for encouragement with regard to the Christmas seal sale, etc. Probably the most valuable function of a state association in the conservation of local programs is the expert services that it gives to local groups, through its various staff members and from those outside of its immediate staff whom it invites to come as consultants into the local community.

FROM LOCAL TO STATE

On the other hand, What may a state association expect from a local association? These services may be grouped under the following heads:

1. Coöperation

By this is not meant slavish submission but a broad (non-provincial) point of view. Too many local associations adopt the theory that all of their work is for themselves and that they have no obligation outside of their own immediate community. The fallacy of this position becomes at once apparent when one appreciates that tuberculosis as a local problem in any given state, county or city is vitally affected by the condition of health in adjoining counties, the residents of which migrate to and fro from one county to another. Just as no counties are independent of other counties, financially or industrially or even religiously, so they cannot be independent of one another in the realm of health and the control of disease. Whatever contributes to tuberculosis in Georgia, in the long run contributes to tuberculosis in Vermont, and similarly what-

ever makes tuberculosis a more serious problem in Vermont will find its reflex on conditions in California. The United States government and every state department of health clearly recognizes this epidemiological principle. Hence, coöperation between local associations and between local and state associations is a first requisite of success. It may well be postulated, not as an academic principle, but as a tried and tested procedure, that the local tuberculosis association that attempts to live to itself soon dies.

2. Financial support

A state association may furthermore expect from a local association financial support. The state association renders to the local association a vital and valuable service, a service that costs money. The local association may not be able always to evaluate the service in actual dollars and cents. But if the true spirit of coöperation is there, and if the state and national programs for the control of tuberculosis are viewed in their broadest possible aspects—as they should be—it will readily be seen that the financial obligation is a real one. The local association is paying for what it gets and in most instances is paying a ridiculously low price for it. The average local association through the Christmas seal pays to the state association a very low percentage for the service rendered locally, especially when it is considered that thousands of dollars have been spent by state and national organizations to perfect and advertise this financial method.

3. Legislative support

The state association may rightly expect that the local association will support it in legislative programs. The state association should initiate and superintend the passage of legislation, but the local association should support and further these efforts.

4. Progressive development

The state association may also expect from the local association that it will develop its territory in a progressive way. When a local association is formed it assumes a definite obligation for the territory preëmpted by it. If the local program is one-sided and partially complete, the territory is not properly covered. The state association, however, by virtue of its understanding with the local organization, is prevented from undertaking the development of the uncovered territory. Or to view it another way, if the local association lays stress upon one side of the program, as for example the hospital or sanatorium to the neglect of the educational or case-finding activities, the state association is prevented from undertaking to supplement the program of the local association because the latter has first claim upon its territory. The local association, therefore, by virtue of its very existence, assumes an obligation to develop a progressive program and to cover the field in a way so that the incidence of tuberculosis will not reflect unfavorably on other communities.

5. Suggestion

Finally, a local association should be willing to accept suggestions and a certain amount of supervision from the state association. The state association should not be meddlesome; it should seek to be helpful. The local association, on its part, should be willing to accept the leadership and suggestions of the broader state organization, applying wherever possible these suggestions for the benefit of its own local program. Experience has shown again and again that in those communities where suggestions of state and national associations have been accepted most readily, the programs have developed most rapidly.

FOUR PRINCIPLES

In summary of the relations of state and local work four principles of state work in relationship to local work may be stated:

1. Organization

The state association has the task, first of all, of organizing its territory. It must see that the territory is covered and that it is as intensively organized as possible.

2. Education

It must provide the education to fill in the gaps and to support the local programs. This will include the use of all state-wide media of education.

3. Stimulation

It must provide stimulus and standards to raise the local programs to the highest degree of efficiency.

4. Coördination

It must finally bring to bear upon each local program the best and most useful facilities of the health and social agencies of the entire state. In view of the broadness of the program, as indicated in the preceding chapter, the task of coördination of state agencies with local agencies is one of the utmost significance.

SELECTED REFERENCES

'The Integrity of the Christmas Seal. New York, National Tuberculosis Association, 1922. 28 p.

Chapter IV. Relationship, p. 9-16.

ARTICLES

HATFIELD, C. J. The relation state and local anti-tuberculosis associations should sustain to each other. National Tuberculosis Association. Transactions, v. 11, p. 321-25, 1915.

Illinois Tuberculosis Association. Organization chart. Tuberculosis work in Illinois. Illinois Arrow, 3:28, May and June, 1920.

KINGSBURY, J. A. The organization of local tuberculosis campaigns by a state association. National Tuberculosis Association. Transactions, v. 5, p. 96-99, 1909.

LYMAN, D. R. The relationship of the state and national association to the other agencies in the tuberculosis campaign. National Tuberculosis Association. Transactions, v. 15, p. 17-25, 1919.

CHAPTER XXIV

THE NATIONAL PROGRAM

The National Tuberculosis Association, formally organized in June, 1904, grew out of a real demand of physicians and laymen for a nation-wide organization that would popularize the teachings of great medical leaders like Koch, Trudeau and others.

When the National Tuberculosis Association opened its office in 1905 it found practically no organization for the control of tuberculosis. There were a few tuberculosis associations. In certain cities like New York, Philadelphia, Boston, Baltimore and Washington some active work was being done with full or part-time executives. No state organizations were functioning in a broad way. There were only a half dozen in existence, even on paper. Of clinics there were about twenty-five, most of them poorly equipped and with little real conception of their task. There were a number of institutions for the treatment of tuberculosis, but most of them were either private sanatoria or public institutions with low standards. The field was largely, therefore, a virgin one.

The National Association conceived as its first task the education of the public with regard to the nature, prevention and treatment of tuberculosis. A broad extensive educational campaign was organized for several years. Its second great task was the development of organization on a state-wide basis for the control of tuberculosis. It was not until between 1916 and 1917 that this task was finally completed. Its third task, begun more than ten years ago and still continuing, is the standardization of tuberculosis work. Its fourth outstanding task has been and still is the development of research in the social and medical phases of tuberculosis.

AIMS AND PURPOSES

The primary aims and purposes of the National Tuberculosis Association can not be better stated than they are in the revised by-laws of the Association as follows:

- a.* The study of tuberculosis in all its forms and relations;
- b.* The dissemination of knowledge concerning the causes, treatment and prevention of tuberculosis;
- c.* The encouragement of the prevention and scientific treatment of tuberculosis;
- d.* The stimulation, unification and standardization of the work of the various anti-tuberculosis agencies throughout the country, especially the state and local associations;
- e.* The coöperation with all other health organizations in the coördination of health activities;
- f.* The promotion of international relations in connection with health activities in the study and control of tuberculosis.

THE NATIONAL MOVEMENT

When in 1910 the National Tuberculosis Association made an alliance with the American Red Cross in the then Red Cross Christmas seal sale, the development of state and local organizations began to be assured. The growing success of the seal sale together with the policy of the National Tuberculosis Association, that the seal should support local, state and national work, has been responsible almost entirely for the present size of the tuberculosis movement. Today there are approximately 1200 tuberculosis associations in this country, with a state association in every state and with a great many of the local associations manned by full-time paid executives. The sanatoria and hospitals number over 700 with a bed capacity of about 60,000. There are nearly 600 tuberculosis clinics and dispensaries, and several thousand public health nurses doing tuberculosis work. There are more than a thousand open-air schools and fresh air classes, and a growing number of preventoria and day camps. These figures do not adequately tell the exact story of the present movement for the control of tuberculosis, but give some idea of its sweep. To get a true

picture one must visualize state and local boards of health that have been rejuvenated and reorganized, official and non-official organizations that have been brought into a closer relationship with the tuberculosis movement, and a general reduction in the tuberculosis death rate in the registration area that is almost phenomenal, to 99.4 per 100,000 population in 1921.

For a fuller account of the National Tuberculosis Association in its historial development the reader is referred to the history of the National Tuberculosis Association published in 1922 by the Association.

POLICIES

For the purpose of these pages a consideration of some of the policies of the National Association in relation to state and local work is more significant.

1. Financial

The financial policy of the National Tuberculosis Association with reference to state and local associations has centered largely about the tuberculosis Christmas seal. The Association views the Christmas seal as essentially a bond of union between the local, state and national organizations. Because of its educational and financial value, it is the tie that binds the whole tuberculosis movement together into a degree of solidarity not found in any similar great national social movement. The National Association stands for a broad policy of promotion of the Christmas seal and for the maintenance of its integrity against the possible aggression of independent seals, financial federations and similar efforts.

2. Official agencies

Ten years ago there was a considerable amount of agitation and optimism among certain tuberculosis workers and a desire to turn the tuberculosis work over to official agencies in the hope that the local associations could soon go out of business.

That such optimism is not justified is clearly shown by a number of experiences in cities where it was tried. The National Tuberculosis Association has always held closely to the policy that the local tuberculosis program must be turned over gradually to official agencies but that, before it can be turned over, the official agencies must be made to realize the true significance of the program and its proper place in the community. This does not mean that the non-official tuberculosis association may soon "go out of business." It probably may go out of business some day, but for the time being it must stand by to perform those functions of the non-official agency in relation to the official agency which were indicated in Chapter XIX.

3. Research

So long as our knowledge of tuberculosis is limited, the National Tuberculosis Association stands for more research. It aims to stimulate this through its membership and through various other agencies. It also aims to stimulate local and state associations to promote research.

4. Coördination

The Association's policy with reference to coördination is broad. The National Tuberculosis Association was influential in the organization of the National Health Council, a coördinating agency composed of the leading national health associations of the United States. It stands for the broadest coöperation and coördination with federal and state bodies and with other social agencies that have a bearing upon the tuberculosis problem.

5. Control of tuberculosis

The National Tuberculosis Association looks upon the control of tuberculosis as a problem which in the last analysis must be solved largely by the local community. The state and national agencies may help in many ways, but the real responsibility must rest in the city, town or local community. Hence the National Tuberculosis Association seeks through its own

office and the office of the various state associations to develop this local responsibility and to guide and direct local efforts along the most productive lines.

ORGANIZATION

The organization of the National Tuberculosis Association is relatively simple. There is a board of directors of 103 members. Of these fifty-three may be nominated by state and affiliated associations, including one from each of the forty-eight states, the District of Columbia, and the cities of New York, Brooklyn, Pittsburgh and Chicago. Fifty more are elected at large. The board of directors and the executive committee govern the Association. At the head of the staff is the Managing Director and under him are the various services, including the administrative, supply, medical, publicity and publications, Modern Health Crusade, field, statistical and campaign. There are between fifty and sixty persons on the staff, including the administrative and clerical staffs. The net budget of the National Tuberculosis Association for the year 1923 is approximately \$200,000.

WORK OF THE NATIONAL ASSOCIATION

The program and work of the National Tuberculosis Association is almost entirely for the benefit of local and state associations. The National Association carries on practically no activities for individuals and organizations other than its own constituent and affiliated associations. The work that the National Association does for state and local associations may be summarized briefly under the following headings:

1. Clearing house for information and supplies

The Association is first of all a clearing house for information and supplies. The office aims to answer inquiries on every phase of tuberculosis. If it cannot furnish the information directly, it endeavors to secure it from such sources as are available.

It is furthermore a clearing house for supplies. Every year over \$200,000 worth of supplies are handled by the National Tuberculosis Association for the benefit of local and state associations. In this way thousands of dollars are saved to these organizations.

2. Clearing house for financing

The National Association is secondly, as has already been pointed out, a clearing house for financing tuberculosis work. Through the Christmas seal, of which it is the proprietor, it furnishes the means for conducting a campaign, which in 1922 raised over \$3,800,000 for state and local tuberculosis associations. Of this large sum the National Tuberculosis Association receives only 5 per cent, the balance remaining either in state or local treasuries. The Association assumes entire responsibility for organizing the campaign, involving an expenditure of over \$150,000 in the purchase of supplies, besides an annual service outlay of about \$40,000.

3. Conduct of national campaigns

The National Association also serves as a center for the conduct of national campaigns, such as Health Week, Tuberculosis Sunday, and similar movements. Through its office information on such campaigns is spread far and wide to local and state associations and to other agencies that might be interested.

4. Publicity and education

In the field of publicity and education the National Tuberculosis Association renders a distinct service. Through the Christmas seal sale and in other ways the coöperation of thousands of publications with a national and interstate circulation is secured. The Association is careful not to interfere with local educational programs and to publish and circulate only such information as will be of the greatest value in supporting state and local activities.

5. Field service

Through the field service the Association sends personal representatives to discuss state and local problems and to help in the solution of these problems. The expert members of the staff are available through the field service, as are also consultants in various subjects who are not members of the staff.

6. Modern Health Crusade

The National Tuberculosis Association about six years ago organized the Modern Health Crusade, which movement now has over 7,000,000 children enrolled. It is the central headquarters for promoting and developing this health education system. The handling of supplies in the Modern Health Crusade alone involves a large sum of money each year.

7. Federal legislation

Under this heading may be considered the service of the National Association not only in securing actual legislation, which is in itself an important matter, but also in bringing to bear upon the state and local problems the services of those federal bodies that are interested in tuberculosis work. Such federal boards and bureaus as the United States Public Health Service, the Veterans Bureau, the Bureau of Education, the Department of Labor, the Children's Bureau, and many others have contributed to the support of local and state programs largely through the instrumentality and influence of the National Tuberculosis Association. The value of this support has proved a great stimulus in many communities.

8. Research

There is very little medical research of any consequence in this country that is not being published by the National Tuberculosis Association either in its Transactions, in the American Review of Tuberculosis, at its annual meetings, or otherwise. The Association stimulates definite pieces of medical research

under a committee appointed for that purpose. The Framingham Health and Tuberculosis Demonstration, of which mention has already been made, is research on a community basis. The Association has conducted a special study of the indigent migratory consumptives in the southwest and elsewhere. In the fall of 1921 it began a special study of health hazards in industry with particular reference to tuberculosis, working in coöperation with the Federal Board for Vocational Education. These are but a few ways in which the Association is stimulating research.

9. Publications

The publications of the Association are varied and numerous. There are three monthly publications: the American Review of Tuberculosis, the medical organ of the Association; the Journal of the Outdoor Life, the official organ; and the monthly Bulletin, its house organ. Besides these three and the annual volume of Transactions, and the bi-weekly News Letter to state associations, the Association also publishes a number of pamphlets, monographs, and books dealing with various phases of the tuberculosis problem, all of which are sold as near to cost as possible. The value of these publications in promoting knowledge and interest in tuberculosis is inestimable.

10. Conferences and meetings

The Association holds its annual meeting in the spring, and conducts a series of sectional conferences in various parts of the country in the fall of the year. Besides these formal conferences there are a considerable number of smaller and group conferences conducted in various parts of the country at different times throughout the year. These conferences and meetings are, for the most part, to discuss programs, policies and methods of tuberculosis work. They are distinctly gatherings of workers.

11. Improvement of methods

The National Association contributes to the promotion of higher standards of tuberculosis work in a number of different ways. Each person on its staff is an expert in certain lines. These experts give their services to local and state associations in the solution of problems dealing with their work, whether institutional, organization, publicity, etc. Through publications of various kinds the Association also aims to develop higher standards of tuberculosis work. Through coöperation with such agencies as the American Sanatorium Association and the American Association of Social Workers it performs a similar service.

12. Medical education in tuberculosis

The National Association has taken the leadership in the development of plans for medical education in tuberculosis. The work is being carried on along two lines: first, the development of more teaching of tuberculosis in the medical schools; and secondly, the promotion of a broader interest on the part of general practitioners. Through publications, through personal visits and addresses, through the American Review of Tuberculosis, and in a great variety of other ways these aims are being realized.

13. Nursing education in tuberculosis

Similarly a definite effort is being made to promote nursing education in tuberculosis in the training schools and in the rank and file of nurses, both public health and general nurses. Already there is an appreciable development of interest in tuberculosis nursing, as contrasted with a few years ago, which in turn reflects itself very markedly upon the programs of state and local associations.

14. Training and placement of workers

Each year since 1916 the National Association in coöperation with the New York School of Social Work has conducted one

or more institutes for the training of tuberculosis workers. In addition to these definite institutes, the Association, through its publications, through conferences and in other ways, has endeavored to raise the standard of the personnel of tuberculosis work.

Working with the American Association of Social Workers, the Association also carries on an active placement or employment service for tuberculosis workers. Hundreds of tuberculosis executives have been placed in the last few years, through this service. The service is available without charge to tuberculosis workers and associations.

15. Coördination

The Association has worked with other national health and social agencies, such as the American Red Cross, the American Child Health Association and other member organizations of the National Health Council, in the development of coöperative programs. This service has been stressed in other connections above.

16. Fake cures

The National Association performs a distinct service also in running down fake cures and questionable agencies. There are over five hundred different fake consumption cures and an increasing number of questionable agencies trading upon the tuberculosis campaign. The National Association gathers information and, wherever possible, endeavors by legal or other methods to put these agencies out of business.

Besides these services accomplished primarily for the state and local associations, the Association through the *Journal of the Outdoor Life*, through correspondence and other ways, carries on an extensive service for tuberculosis patients. Wherever possible, inquiries of this character are referred to the state or local associations interested in them.

INTERNATIONAL RELATIONS

While the National Tuberculosis Association exists essentially for work in the United States, it does have international obligations and relations. It is a member of the International Union against Tuberculosis with headquarters in Geneva, and has been represented at meetings of the Union in the last two years. The International Union will meet in the United States in 1926.

The National Association is also obliged to interest itself in the problems of foreign individuals and foreign governments. It is a daily occurrence at the office of the National Association to receive correspondence from men and women, officials and others, in various parts of the world asking for publications, information, literature and so forth. Not all of these communications and inquiries can be answered as they should be, largely for lack of funds. The Association endeavors, wherever possible, to maintain a friendly and coöperative relation with other national tuberculosis associations and individuals in foreign countries interested in tuberculosis work. Many of the methods of the National Tuberculosis Association have been copied and are being carried out in foreign countries, as for example in France, Czechoslovakia, Serbia, China and elsewhere.

SELECTED REFERENCES

- Journal of the Outdoor Life, v. 1, 1904, to date. National Tuberculosis Association, 370 Seventh Ave., New York City.
- KNOPF, S. A. A History of the National Tuberculosis Association. New York City, National Tuberculosis Association, 1922. 505 p.
- NATIONAL HEALTH COUNCIL. Membership and Program. New York, 1921. 31 p. (Publication no. 2)

ARTICLES

- ARMSTRONG, D. B. Coördination of voluntary health agencies. American Journal of Public Health, 12:929-31, November, 1922.
- JACOBS, P. P. Organization for the prevention and control of tuberculosis in the United States. Journal of the Outdoor Life, 17: 297-300, 334-335, 344, November, December, 1920. 18: 10-14, January, 1921.
- NATIONAL TUBERCULOSIS ASSOCIATION. By-laws. National Tuberculosis Association. Transactions, v. 18, p. 735-38, 1922.

CHAPTER XXV

TUBERCULOSIS PROGRAMS IN RELATION TO OTHER SOCIAL PROGRAMS

The very breadth of the tuberculosis program as indicated in the preceding chapter, requires coördination of its state, national and local units with other health and social agencies. It cannot properly carry on without the most intimate relationship with these agencies.

Tuberculosis is a disease of many ramifications. It roots itself into almost every phase of social, political and industrial life. It bears a vital relation to many other medical problems; for instance, to other respiratory diseases, such as pneumonia, influenza, bronchitis, measles, scarlet fever, whooping-cough—all of which have a direct bearing upon the medical incidence of tuberculosis. Such diseases as typhoid fever or syphilis also have a distinct relationship to the tuberculosis problem.

On the social side, the ramifications of tuberculosis extend into such broad fields as those dealing with wages, hours of work, housing, living conditions, family relationships, recreation, food supply, general sanitation, and many others. There is probably no disease problem that offers such extensive and varied ramifications as tuberculosis. It enters into the warp and woof of every day individual and community life.

SOME COÖPERATING GROUPS

This being the case, it is well to consider together some of the agencies with which it is necessary for the tuberculosis movement to coöperate, especially in the development of local programs. A list of this sort would include the following groups and many others:

1. Other health agencies, national, state and local
2. Relief agencies

3. Business, industrial and labor groups
4. Children's work agencies
5. Fraternal and insurance groups
6. Religious groups.
7. Recreational agencies.
8. Agricultural agencies
9. Political agencies
10. Women's groups

In general, the tuberculosis association in any given community can hope to succeed only as it views its individual problem as part of a much larger, public health and social one. Every movement that contributes to the well-being of individuals or the community is, in a broad sense, contributing to the building of resistance against tuberculosis. While no tuberculosis association can hope to coöperate actively with all agencies included in this broad category, there should be no lack of vision and sympathy for the helping hand that these outside organizations are lending. In such a matter as the decline of the death rate, for example, there is little doubt as to the direct influence of the active tuberculosis program on lowered mortality. At the same time, the influence of many contributing factors that have helped to improve general community life cannot be overlooked.

TUBERCULOSIS VS. PUBLIC HEALTH ASSOCIATION

In view of the repeated emphasis on coöperation, some have asked the question, why have a tuberculosis association at all? Why not call it a public health association? The reason for insisting upon a tuberculosis association is largely a psychological one. The field of tuberculosis is broad—extremely broad. The ideal of tuberculosis prevention can best be reached, however, not by trying to sell the broad concept of public health, as has been pointed out in another place (see Chapter I) but rather by trying to sell the partial and narrow concept of tuberculosis prevention. The experience of Framingham clearly shows that the health of the community can be affected in every avenue and in all its relationships through a tuber-

culosis program. In New York State also the emphasis on the tuberculosis program has been the most salient factor in the development of a finer and greater health department.

In other words, the value of the name of the specialized agency is psychological in the main. It is easier to sell health through a tuberculosis organization than to sell tuberculosis through a health organization.

There is, furthermore, a distinct difference between coördination and coöperation along broad lines in the development of a tuberculosis campaign, and amalgamation of all activities into one organization. To the broad theorist who does not have occasion to sell a specialized idea this emphasis on a tuberculosis program may seem narrow and possibly bigoted. To the practical worker in the field it will appeal as a psychological necessity. Tuberculosis work comes into relationship with many different social and public health agencies. It can and should coöperate and coördinate with all of them. It should be very careful, however, as to the extent to which it amalgamates its program with any of them.

The time may come when the various national health organizations will merge into one association with specialized divisions or departments on tuberculosis, social hygiene, cancer, child health, and so on. When this merger of national activities comes, the development of state and local public health associations will be very much simplified, because of the reduction in financial support at the top and the possibilities of developing a united program. But even when this desired national amalgamation is reached, we venture to predict that in the state and local community as well as in the national field, the educational emphasis will still have to be on tuberculosis or cancer, or some other specific problem and not on health, either individual or community.

To illustrate from the business field, the American Tobacco Company does not try to sell cigarettes. It sells specific brands of cigarettes, such as Camels or Chesterfields. So in the health field, whatever the form of organization, the aim should always be to sell to the public only that part of the whole concept of public health that it can easily comprehend.

SELECTED REFERENCES

- BURNHAM, A. C. *The Community Health Problem*. New York, Macmillan, 1920. 149 p.
- HAWES, J. B., 2D. *Tuberculosis and the Community*. Philadelphia, Lea & Febiger, 1922. 168 p.
- RICHMOND, M. E. *What is Social Case Work? An Introductory Description*. New York, Russell Sage Foundation, 1922. 268 p. (Social work series.)

ARTICLES

- FOLKS, HOMER. *Tuberculosis Associations and Relief Agencies*. National Tuberculosis Association. *Transactions*, v. 13, p. 414-20, 1917.
- LYMAN, D. R. *The work and relationships of the anti-tuberculosis association*. Massachusetts Tuberculosis League. *Fifth annual report*, 1918-19, p. 31-37.

CHAPTER XXVI

THE PSYCHOLOGY OF COMMUNITY ORGANIZATION

In concluding this work on tuberculosis methods and programs, the author has felt that a chapter on the psychology of community organization, particularly as it relates to the tuberculosis worker, would be of value. This chapter is frankly based, as the others are, upon the experience of the tuberculosis movement. The term "psychology" as used here may be somewhat of a misnomer, but it comprehends as well as any other single word the various factors that are discussed in the chapter.

PUBLIC OPINION

Very few terms are more abused than the term "public opinion." People speak of it without any idea of what it means. What is public opinion? It is determined by persons in their reaction to common stimuli. It is mass opinion set in motion. As Professor Giddings points out, group actions represent in their primary analysis the response to common stimuli. So public opinion in its simplest terms is a common reaction to a common stimulus or to common stimuli. Often confused with public opinion is community consciousness or group consciousness, which is not the same thing as public opinion, but is a development from it. The tuberculosis worker seeks both to form and to formulate public opinion. Group consciousness results from the formulation of public opinion and the combined action of the group. In other words, group consciousness is a second step. It is public opinion molded and motivated into action. The tuberculosis worker seeks to get action and through this to arrive at a favorable attitude toward his work, that is, group consciousness. He is therefore first a stimulator and secondly a formulator of public opinion.

COMMUNITY CONSCIOUSNESS

As an organizer, the tuberculosis worker should seek to ascertain the factors that determine public opinion and community consciousness before he attempts to apply his methods and programs. Broadly speaking, community consciousness and action are determined by the following factors:

1. Size of community

The size of the community will be a determining factor in the development of community consciousness. A large community can be aroused much more easily than a small community. The stimuli to be applied will be different, according to the size of the community. The method and program will vary, depending upon the size. By size is meant not only the geographical area, but the number of people.

2. Character of population

The character of the population and its composition will also help to determine the methods and programs to be applied. For instance, What is the character of the population? Is it rural or urban? Is it foreign or mixed? Is there a predominant number of males in the community? Are there more black than white people? Is there a predominance of one nationality, as for example, Scandinavian, or Russian, or Irish, or Italian? What is the industrial character of the population? These questions will determine to a very considerable degree the kind of stimuli to be applied in the formulating of public opinion.

3. Traditions

Every community has its traditions. Even the newest have some. The tuberculosis worker who enters a community without respecting its traditions is sure to find a curious reaction to the stimuli that he applies. He must bear in mind that every new method, every new idea, is in a sense a stimulus and that there is bound to be an individual and group reaction to

it of a greater or less extent. The northerner, for instance, who goes to the South and who fails to observe the traditions with regard to the Negro is bound to encounter serious trouble before very long. The westerner who goes into a New England community without observing some of the age-long traditions of that town is going to find himself greatly embarrassed by the reaction to some of the stimuli that he applies.

4. Means of communication

The means of communication and the intercourse within the community are other factors that determine the ways in which methods and programs shall be applied. If there are abundant transportation facilities, telephone and telegraph lines, frequent mail service and easy travel from one community to another, the method will be of one sort. If it is a mountain county of West Virginia or one of those counties of Oregon or Wyoming that are larger than some of the New England states and have fewer people than a fair-sized New York or Massachusetts town, the kind of stimulus to be applied will be a radically different one. The newspaper, the telephone, the telegraph, the railroad, the motion picture and other means of communication and intercourse are vital in determining the stimuli to be applied.

5. The varied method

Finally, the methods themselves to be applied must be varied and adapted to the particular local program in order to get the right kind of response. One community, for example, is more interested in children than another. Here is a community that is interested in an industrial problem. Here is one that is interested in hospital care. Here is another that is interested possibly in relief. When the organizer bears in mind that he approaches generally a fragmentary group of the community at first and through that fragmentary group must eventually reach the entire community, the success of the application of certain stimuli to that fragmentary group

will depend upon his ingenuity in adapting his program to peculiar needs and sometimes to the peculiar desires of the individuals approached. This may even mean compromise from what he had supposed was the best type of program, but it usually makes for progress. It may also be opportunistic; but if there is vision to see the whole program, opportunism may be desirable.

SOME SOCIOLOGICAL PRINCIPLES APPLIED

1. Facts as stimuli

Facts are the real stimuli that set mass opinion in motion and thus develop public opinion. The tuberculosis worker determines from survey or otherwise the facts about the tuberculosis situation. These facts give him the stimuli to apply either to the community as a whole or to his initial group. He must, of course, differentiate between facts and jingoism. Not every shout from the housetop, even by an honest and sincere person, is a fact. Many a tuberculosis worker has been led astray by an endeavor to apply false ideas.

2. Personalities

Strong personalities compel or attract others. This is a sociological principle clearly demonstrated by such writers as Tarde, Durkheim and LeBon. The tuberculosis worker, with this principle in mind, will call out those personalities in the community that will compel or attract others. By getting these "key" people, he will draw to his movement other persons of importance. His astuteness in selecting such personalities will be a measure of his success.

3. Emblem

The tuberculosis worker should not lose sight of the psychology of the emblem. The double-barred cross in its historical significance to the tuberculosis movement has no relation whatever to religious, political or fraternal movements. It was first used as the emblem of the Greek Catholic Church. In the

12th century Godfrey of Lorraine who had probably seen it in Jerusalem on one of the Crusades, adopted it as his emblem. The Masons have also used the emblem. When in 1902 it became the emblem of the international movement against tuberculosis at the behest of Doctor Sersirron of Paris, it lost—so far as the tuberculosis movement was concerned—all of its former significance. It became merely an attractive emblem about which the tuberculosis campaign might rally. The National Tuberculosis Association in 1906 adopted it as its own for use in this country. It has now been registered as the trademark of the National Association. The psychology of the emblem, therefore, to the tuberculosis worker is of considerable value. It should prove of value in holding the entire tuberculosis organization together. The tuberculosis worker will feature it in season and out of season because of its peculiar significance.

4. Self-interest

Probably the most appealing social stimulus is that of self-interest. The tuberculosis worker imbued with a broad altruistic purpose sometimes loses sight of this somewhat narrow and possibly sordid point of view. It is necessary, however, in many instances to appeal to the individual or group self-interest, or even to the self-interest of the community as a whole. The skill with which the tuberculosis worker can marshal facts to appeal to this simple sociological interest will help to determine the place of his program in the community.

5. Democracy

Democracy in a health program should also be taken for granted. Health and disease belong to all alike. No class can dictate health to another. The tuberculosis movement should make health attractive. To do this it must work upon the principle of democracy in organization and in the presentation of its appeal. It is not an appeal of one class to another. It is an appeal of equals to equals, an appeal of one citizen to another citizen, of one member of the community to the community as

a whole. This is the only way in which the tuberculosis movement can be made a distinct success.

HOLDING PUBLIC OPINION

When community support in the organization of a tuberculosis program has been secured and when a certain amount of public opinion has been aroused, how best can public opinion be held? A few simple principles may be of value.

1. Adopt a real program

First of all, adopt a real community program, one that will fit the needs of the community and will give as many people as possible something to do. A program that appeals to only a few and that lacks democracy in its preachment and in its practice will not hold public opinion. The more the community feels that the program is its own, that each one has a share in it, the more readily will it coöperate.

2. Variation

Vary the method and program from time to time. The stress should not always be upon the same thing. The community gets tired of hearing the tuberculosis association "harping upon one string." Without doing violence to the program, and because of its very broadness and extent, the emphasis can be placed in different years and at different seasons upon different things, and thus the interest of the community can be constantly stimulated.

3. Varying motives

Appeal to different motives, selfish and altruistic, for example. Some people will be interested because of self-interest. Some from a humanitarian point of view. Others will feel a conscientious or religious urge. Analyze the motives and moods of the community and appeal to these varying moods and motives at different times and to different groups.

4. *Information*

Above all, keep the public informed. No program can succeed that does not keep the public fully informed of what is going on. It is a responsibility that the tuberculosis worker owes to his constituency.

5. *Ask the public to help*

Finally, ask the public to help. The public will support the program only as it is asked to help in it. It should be asked to help financially and in other ways. The value of the financial campaign is not only in the money secured. It is in the interest stimulated. If the financial campaign secures only money, it loses half of its objective.

CONCLUSION

A well known publicity man has said that the right kind of organizer of public opinion can get any reasonable thing from a community if he goes at it in the right way. The way in which political demagogues have sold themselves and their satellites to large American cities would seem to bear out this conclusion. It is largely a question of organization and selling.

The tuberculosis worker has a great message to sell. He has a well developed technique. He *can* sell his program. Let him go ahead and do it.

SELECTED REFERENCES

- GIDDINGS, F. H. *ed.* Readings in Descriptive and Historical Sociology. New York, Macmillan, 1906. 553 p.
- LE BON, GUSTAVE. The Crowd, a Study of the Popular Mind. London, Unwin, 1920. 239 p.
12th impression.
- TARDE, GABRIEL. The Laws of Imitation. Trns. by E. C. Parsons. New York, Holt, 1903. 404 p.

APPENDIX

A SELECTED LIBRARY FOR TUBERCULOSIS WORKERS

Supplementing the references at the close of each chapter, the following list of books aims to supply information about those works that should be in every tuberculosis worker's library. Books and current health periodicals are among the indispensable tools of the tuberculosis worker. He can no more expect to do good work without books than he can without stationery.

No effort has been made to make the list exhaustive. On the contrary an effort has been made to select only those titles that are of the greatest value to the lay tuberculosis worker or to the physician who is working in the administrative field of tuberculosis work. Only books, monographs and a few current periodicals are included in this list. In order to indicate a minimum library for those who cannot afford to buy the entire list, those books and periodicals that the author believes are *most necessary* are starred with an asterisk (*). If possible, however, all of the books on this list should be secured. The cost of the entire list of books exclusive of periodicals is only \$98.85.¹

SOME GENERAL WORKS

BROWN, LAWRASON: Rules for recovery from pulmonary tuberculosis.

4th edition revised. Lea and Febiger, 1923. 217 p. \$1.50.

*COBBETT, L.: The causes of tuberculosis. Cambridge University Press, 1917. 707 p. \$8.00.

*HAWES, J. B., 2ND: Tuberculosis and the community. Lea and Febiger, 1922. 168 p. \$1.75.

HAWES, J. B., 2ND: Consumption, what it is and what to do about it. Small, Maynard & Co., 1915. 107 p. \$1.25.

¹ Prices quoted are as of April 1, 1923 and are subject to change. The Journal of the Outdoor Life, the book department of the National Tuberculosis Association, will always be pleased to advise about books. It will purchase books for anyone interested at current trade prices.

- KING, D. MACD.: The battle with tuberculosis and how to win it. J. B. Lippincott, 1917. 258 p. \$2.00.
- *OTIS, E. O.: Pulmonary tuberculosis. Leonard, 1920. 212 p. \$3.50.
- *KNOPF, S. A.: A history of the National Tuberculosis Association. National Tuberculosis Association, 1922. 505 p. \$4.50.
- KRAUSE, A. K.: Environment and resistance in tuberculosis. Williams & Wilkins, 1923. 137 p. \$1.50.
- KRAUSE, A. K.: Rest and other things. Williams & Wilkins, 1923. 159 p. \$1.50.
- *TRUDEAU, E. L.: An autobiography. Doubleday, Page & Co., 1916. 322 p. \$4.00.
- WALTERS, F. R.: Domiciliary treatment of tuberculosis. Wm. Wood, 1921. 290 p. \$4.00.

SOME BOOKS ON METHODS²

- AMERICAN MEDICAL ASSOCIATION: Nostrums and quackery. The Association, 1912-1921. 2 vols. Vol. 1, 2nd ed. \$1.00, Vol. 2, \$2.00.
- BRAINARD, A. M.: Organization of public health nursing. Macmillan, 1919. 144 p. \$1.50.
- DAVIS, M. M. AND WARNER, A. R.: Dispensaries, their management and development. Macmillan, 1918. 438 p. \$2.25.
- EMERSON, W. R. P.: Nutrition and growth in children. Appleton, 1922. 341 p. \$2.50.
- FRANKEL, L. K. AND FLEISHER, A.: The human factor in industry. Macmillan, 1920. 366 p. \$3.00.
- *FRAMINGHAM MONOGRAPHS, No. 1-9. Framingham, Mass., Framingham Community Health and Tuberculosis Demonstration, 1918-1922. 9 Nos. 50¢ a set.
1. The program.—2. The sickness census.—3. Vital statistics.
 4. Medical examination campaigns.—5. Tuberculosis findings.
 6. Schools and factories.—7. Children's summer camps.—8. Health letters.—9. Influenza.
- *GARDNER, M. S.: Public health nursing. Macmillan, 1922. 372 p. \$2.50.
- *HORWOOD, M. P.: Public health surveys. Wiley, 1921. 403 p. \$4.50.
- HILL, H. W.: The new public health. Macmillan, 1919. 206 p. \$1.50.
- KOBER, G. M. AND HANSON, W. C. eds.: Diseases of occupation and vocational hygiene. Blakiston, 1916. 918 p. \$10.00.
- NATIONAL TUBERCULOSIS ASSOCIATION:
 Directory of sanatoria. New ed. 1923. (In press.)
- *Health training in schools. A handbook for teachers. 1923. \$1.00. Prepared by T. Dansill.

² There is a certain amount of intentional repetition of titles from the selected references at the end of each chapter.

- An outline of lectures on tuberculosis. Prepared by H. A. Pattison and M. E. Marshall. 1921. 15 p. \$.10.
- Talking points about tuberculosis. Rev. ed. 1923. 16 p.
- Transactions of the annual meetings. 1904, 1st to date. \$.50 for volumes more than two years old. \$1.25 to \$2.50 for newer volumes.
- *PARK, W. H. *ed.*: Public health and hygiene in contributions by eminent authorities. Lea and Febiger, 1920. 884 p. \$10.00.
- PERSONS, W. F.: Central financing of social agencies. Columbus Advisory Council, Ohio. 284 p. \$2.00.
- RICHMOND, M. E.: What is social case work? Russell Sage Foundation, 1922. 268 p. \$1.00.
- *ROUTZAHN, E. G. AND ROUTZAHN, M. S.: The A B C of exhibit planning. Russell Sage Foundation, 1918. 235 p. \$2.00.
- ROUTZAHN, M. S.: Traveling publicity campaigns. Russell Sage Foundation, 1920. 151 p. \$1.50.
- *WHIPPLE, G. C.: Vital statistics. 2nd ed. Wiley, 1923. 579 p. \$4.00.
- WRIGHT, F. S.: Industrial nursing. Macmillan, 1920. 179 p. \$1.50.

PERIODICALS

- AMERICAN JOURNAL OF PUBLIC HEALTH. American Public Health Association, 370 Seventh Avenue, New York City. \$4.00.
- AMERICAN REVIEW OF TUBERCULOSIS. National Tuberculosis Association, 370 Seventh Avenue, New York City. 2 volumes per year beginning March and September. \$4.00 per volume of six months.
- *BULLETIN OF THE NATIONAL TUBERCULOSIS ASSOCIATION, 370 Seventh Avenue, New York City. On request.
- HYGEIA. American Medical Association, 535 N. Dearborn Street, Chicago, Illinois. \$3.00.
- *JOURNAL OF THE OUTDOOR LIFE. National Tuberculosis Association, 370 Seventh Avenue, New York City. \$2.00.
- MODERN HOSPITAL. Modern Hospital Publishing Company, 22 East Ontario Street, Chicago, Illinois. \$3.00.
- NATION'S HEALTH. Modern Hospital Publishing Company, 22 East Ontario Street, Chicago, Illinois. \$3.00.
- PUBLIC HEALTH NURSE. National Organization for Public Health Nursing, 370 Seventh Avenue, New York City. \$3.00.
- SURVEY. Survey Associates, 112 East Nineteenth Street, New York City. \$5.00. Bi-weekly.

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